



EMPLOYEES' MAGAZINE

The Union Pacific Coal Company
Washington Union Coal Company

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OCTOBER, 1932

MILEAGE!

--you said it!

U. S. TIRES LEAD THEM ALL!

You Cannot Overlook These Facts

*Extra
mileage*

*Extra
beauty*



*Extra
safety*

*No
Extra
cost*

We Are Proud To Sell U. S. Tires

THE UNION PACIFIC COAL COMPANY STORES

"Where your dollar is a Big Boy all the time"

Rock Springs
Reliance

Winton

Superior
Hanna

EMPLOYEES' MAGAZINE

THE UNION PACIFIC COAL COMPANY
WASHINGTON UNION COAL COMPANY

VOLUME 9

OCTOBER, 1932

NUMBER 10

Coffee

The World's Favorite Beverage

By JAMER R. DEWAR

COFFEE, the most important item on the menu, whose aroma permeates the house early each morning throughout the year, is a stimulant in more ways than one. If you're indulging in your daily shave, or lying abed cogitating upon whether to roll over and take a further snooze, no doubt but there's a certain pull exercised upon your will power to hurry through whatever you're doing and get your feet headed for the stairway toward the dining room or breakfast-nook table for your "morning's morning". It gives you the right start for the day.

COFFEE A FOOD

Coffee is classed as an important and valuable article of food produced from *Coffea Arabica*, a plant indigenous to Abyssinia, where its use is recorded in the fifteenth century. The genus *Coffea* growing wild, besides under careful cultivation, in tropical Africa consists of some twenty-five species. The common Arabian coffee shrub is an evergreen plant attaining a height of 18 to 20 feet, and, at the end of the third to the fifth year, begins to bear fruit and crops are garnered therefrom for about twenty years. The leaves of the plant are oblong-ovate, smooth and shining, measuring about 6 inches in length and 2½ inches in width. Flowers pure white in clusters are borne in the axils of the leaves, giving off a rich, fragrant odor and the plants in blossom have a very attractive appearance. The fruit is a fleshy berry, somewhat similar in looks to a cherry, with the exception that it contains two seeds or berries, and, as it ripens, it assumes a dark red color. The plants in many of the producing countries are cut to 6 and 8 feet to render or make easier the gathering of the coffee berries. One to five pounds per tree is an average crop.

CULTIVATION OF PLANT

The regions best adapted for the cultivation of the coffee plant are on well-watered slopes in tropi-

cal countries at an elevation ranging from 1,000 to 4,000 feet above sea level possessing a mean annual temperature of about 65° to 70° F.

THE FIELDS OF SUPPLY

The world's requirements in olden days came from Arabia (under the name of Mocha). The best grades of its output were selected by merchants of Turkey and Egypt who made periodical journeys thither, purchasing the crop on the trees and picking and preparing it according to their own customs, etc. The West Indies and Java later entered and captured the markets with their productions. Many other countries such as Colombia, Ecuador, Sumatra, Peru, Venezuela, India and British East Africa also contribute their share to the supply. Over fifty thousand acres in the Kenya district in East Africa are planted. Africa was the native country of the tree, and, it is stated, it may eventually become the greatest world producer. Large exports from India are made to Great Britain, its coffee lands being situate in the Mysore and Madras sections, along the Southwestern coast, about 86% of the whole area in the territory referred to being coffee-producing.

PHYSIOLOGICAL ACTION

Its physiological action in dissipating drowsiness (to quote Encyclopedia Britannica) and preventing sleep was taken advantage of in connection with the prolonged religious service of the Mohammedans, whose orthodox and conservative priests looked upon it as an intoxicating beverage, and therefore prohibited by the Koran, severe penalties being threatened to those addicted to its use. Notwithstanding, the habit grew and spread rapidly among the Arabian sect named and the growth of the plant and its use as a national beverage became as inseparably connected with Arabia as tea is with China.

The physiological action of coffee depends largely

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Articles of interest to our readers, photographs and sketches suitable for reproduction, are solicited and should be addressed to Editor, Employees' Magazine, Union Pacific Coal Company, Rock Springs, Wyoming.

upon the presence of the alkaloid caffeine, the percentage of the latter varying in the different species. In Arabian coffee it ranges from 0.7 to 1.6% and several kinds (all local to Madagascar only) contain no caffeine but are impregnated with much bitterness. Other coffees raised on this island contain caffeine. A perusal of our daily papers, monthly magazines, etc., will acquaint the coffee-using public with the fact that several brands with the caffeine extracted are quite largely marketed.

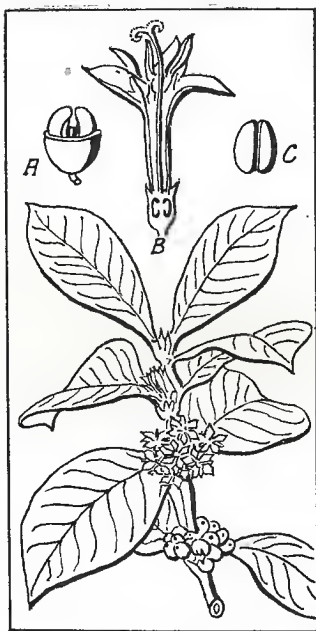
STIMULATING EFFECT UPON THE NERVOUS SYSTEM

Coffee is looked upon by the medical fraternity as a valuable adjunct in its stimulating effect upon the nervous and vascular system, producing, it is claimed, a feeling of buoyancy and exhilaration comparable to a certain stage of alcoholic intoxication, without the depression or collapse usually following the use of the latter. The pulse is quickened, the sensation of fatigue is lightened and it sustains the strength under prolonged and severe muscular exertion.

ITS INTRODUCTION INTO EUROPE

Its appreciation as a beverage in Europe dates from the 17th century and "Coffee Houses" were instituted in Constantinople and Venice, while in London similar refectories were opened in 1652, one in St. Michael's Alley, Cornhill, being among the first. They were quite popular at the start and there gathered, it is said, the wits, poets and politicians of that city, national life centering there for many years, our clubs of today, social, literary, political, etc., springing therefrom. In England, Charles II endeavored to suppress coffee-houses in the belief that they were centers of political agitation. Germany also frowned upon it, so to speak, as "roasting coffee" could only be done under license.

The cut shown on opposite page is of "The vertue of the Coffee Drink" first publicly made and sold by Pasqua Roser, at St. Michael's Alley, is claimed to have been printed in the year 1654 and is in the files of the British Museum, as witness the imprint of seal at bottom.



*A.- Berry with upper half removed to show the two seeds (coffee beans).
B.- Longitudinal section through flower.
C.- One seed showing longitudinal groove.*

CONSUMPTION IN VARIOUS COUNTRIES

The annual British consumption is about 0.7 lb. per capita while the annual amount used in the United States at the beginning of the World War was 11 lbs. per capita, reaching in 1923 12.4 lbs., dropping again in 1925 to 11.09 lbs. per head.

ITS PREPARATION FOR THE TRADE

When the fruits are mature they are picked by hand, permitted to fall of own accord or shaken from the tree. The next preparation is either the dry or wet method; if the former, the cherries are spread in a thin layer on a stone drying floor, exposed to the sun, protected against moisture, where they may be stored almost indefinitely, the dried pulp and film are removed, thus setting free the two beans therein contained. This dry method is the simple and primitive one employed in Arabia and other countries.

In the wet method or process, (the more modern way—largely used in Brazil) the cherries are put in a tank of water, those matured sinking and drawn off through pipes to pulping machines, where they are subjected to the action of a roughened cylinder revolving against a curved iron plate, much as the crushing of coal, cement, etc., in our pulverizers, the fleshy part being reduced to a pulp and the mixture of pulp and liberated seeds (each still covered by the film or parchment) is carried away to a second tank of water and stirred. The film or parchment is removed by slight fermentation and subsequent washings, the beans then dried on trays or by artificial heat.

Roasting of the coffee bean is carried on to a fine point—much care being used to conduct it to a certain degree as by too little or too excessive roasting much of its aroma would be lost.

ADULTERANTS

It was the practice in early times, and still followed in Great Britain and parts of Continental Europe, to mix chicory with the coffee, many preferring the mixture to the pure coffee. It is an easy matter to ascertain whether or not your coffee contains chicory by the use of the microscope, the chicory swells up and softens and the water into which it is thrown turns to a deep brown color. Other items used to adulterate coffee are the roasted and ground roots of many vegetables, soy beans, wheat, rice, acorns, broom seed, etc. Then the substitutes for coffee made from toasted grains, figs, etc., are quite numerous.

THE LARGEST CONSUMER

The United States is the world's largest consumer of coffee, having purchased for the year ending July, 1932, 11,296,722 bags, (132 pounds to the sack) or 1,491,167,304 pounds, or, counting 40 cups to a pound, 59,646,682,160 cups, of this total 8,064,218 bags from Brazil. During the same period, the entire world consumed 23,728,003 bags, so that it will be seen we drank almost as much coffee as the rest of the world. The United States Govern-

The Vertue of the COFFEE Drink.

First published made and sold in England, by *Pasqua Rofet*.

THE Grain or Berry called *Coffee*, growth upon little Trees, only in the *Deserts of Arabia*.

It is brought from thence, and drunk generally throughout all the Grand Seigniors Dominions.

It is a simple innocent thing, composed into a Drink, by being dried in an Oven, and ground to Powder, and boiled up with Spring water, and about half a pint of it to be drunk, fasting an hour before, and not eating an hour after, and to be taken as hot as possibly can be endured, the which will never fetch the skin off the mouth, or raise any Blisters, by reason of that Heat.

The Turks drink it at meals and other times, is usually *Water*, and their Dyets consists much of *Fruit*, the Qualities whereof are very much corrected by this Drink.

The quality of this Drink is cold and Dry; and though it be a Dyer, yet it neither heats, nor inflames more than *hot Posset*.

It so closeth the Office of the Stomack, and fortifies the heat within it, very good to help digestion, and therefore of great use to be about 3 or 4 a Clock afternoon, as well as in the morning.

It quickens the Spirits, and makes the Heart *Lighsome*.

It is good against sore Eyes, and the better if you hold your Head over it, and take in the Steam that way.

It suppresseth Fumes exceedingly, and therefore good against the Head-ach, and will very much stop any Defluxion of Rheum, that distill from the Head upon the Stomack, and so prevent and help Consumption, and the Cough of the Lungs.

It is excellent to prevent and cure the Dropsy, Gout, and Scurvy.

It is known by experience to be better than any other Drying Drink for People in years, or Children that have any running humors upon them, as the Kings Evil, &c.

It is very good to prevent Mis-carrying in Child-bearing Women.

It is a most excellent Remedy against the Spleen, Hypochondriack Winds, or the like.

It will prevent Drunkenness, and make one fit for business, if one have occasion to Watch, and therefore you are not to Drink of it after Supper, unless you intend to be watchful for it will hinder sleep for 3 or 4 hours.

It is observed that in Turkey, where this is generally drunk, that they are not troubled with the Stone, Gout, Dropsy, or Scurvy, and that their Skins are exceeding clear and white.

It is neither Laxative nor Restraining.

Made and Sold in St. Michaels Alley in Cornhill, by *Pasqua Rofet*, at the Signe of his own Head.

ment's Grain Stabilization Corporation a year ago became the owner of 1,050,000 bags (130,600,000 pounds) of coffee through a trade with Brazil under which it sold that country 25 million bushels of our surplus wheat, the coffee to be held in storage at New York in Bush Terminal Warehouses until September 1st of this year, not more than 62,500 bags to be sold monthly. As a result of a revolt and disorders under which the ports of Sao Paulo were closed, this country now faces a shortage and permission has been asked from the Brazilians to enlarge the amounts that may be withdrawn monthly so a deficiency may be prevented. Unless this clause is relinquished, it is claimed a real shortage is almost inevitable, the other coffee-producing countries not growing enough to satisfy our demand.

In an effort to maintain prices a part of the surplus of former years, said to be 9 million bags of coffee, was mixed with tar and converted into fuel briquets; again, some six million bags were sprayed with creosote (to make the coffee undrinkable) and dumped into the sea.

MAIN INDUSTRY OF BRAZIL

Coffee is the principal industry, likewise the

main export of Brazil, and the protection of the crop is under the control of the "Sao Paulo Institute for the permanent defence of Coffee", the government of that clime having relinquished to the Institute all rights conferred by law, therefore it is stipulated that the Chairman and Vice Chairman of the Institute shall be, respectively, the Ministers of Finance and Agriculture, the planters and the Commercial Association of Santos also having representatives in the government body. It regulates the amount of coffee to be retained in the official warehouses, through which all coffee produced in the interior must pass; the amount which shall be exported; the making of agreements with other producing countries for its protection, etc., etc.

ORGANIZATION TO HANDLE COFFEE INDUSTRY IN AMERICA

The great coffee industry no longer will be a loosely-organized business, and the public will be protected in quality and educated in coffee brewing, according to W. F. Williamson of New York, veteran national secretary of the old organization, who was re-elected September 12 for the new organization, the Associated Coffee Industries of America, which had its birth in Denver after two years of reorganization work.

Eloquent addresses on economic and industrial relations between the United States and Brazil and Colombia were given by Sebastiano Sampaio, consul general of Brazil, and Miguel Lopez y Puma-rejo of Colombia. These orators predicted an international combination of mutual interest in the coffee trade that will result in doubling the American market to about 200 million dollars yearly, thus avoiding the depression that has affected the industry the last three years.

BREWING THE BEVERAGE

The burden of making this popular beverage will not be imposed upon our readers in this article as most every housewife has her own method as well as her favorite coffee-pot, percolator, tricolator or drip, and there are brands innumerable, some of which have been classed as standards in the household for many years past.

OLD, BUT TIMELY

"You say," thundered the attorney, "that at midnight you were cleaning out the office and eight masked men brushed past you and went on into the vault room with revolvers drawn?"

"Yah," said Ole.

"And a moment later a terrific explosion blew the vault door off, and the same men went out past you carrying currency and bonds?"

"Yah," said Ole.

"Well, what did you do then?"

"Aye put down my mop."

"Yes, but then what did you do?"

"Vell, Aye say to myself: 'Dis bane hell of a way to run a bank'."

Run of the Mine

Wanted—More Pull-Together

AMERICA and all the world is in a state of mental flux. The theories, methods, even schemes, advanced for the conduct of our social and economic affairs, recall the antics of a drop of quicksilver, that broken up into small globules, will continuously dodge and slide about with lightning rapidity, never pausing more than a fraction of a second in any one place.

A few years ago, the American people were organized politically in two major parties, with certain small factions separately aligned and committed to the support of certain advanced and at times, bizarre theories of government. Then came the Great War and the end of the German Empire which was succeeded by a republic. The German Republic emerged from a welter of chaos, attempting to fuse together a multitude of conflicting factions, some of whom were committed to the old theory of government, some to a quasi-militaristic oligarchy, while many other and smaller factions developed, anxious to put into effect schemes that would best serve their own class, whether labor, capital or agriculture, all contending for what has often been referred to as "a fair advantage".

The splitting up of the German law making body into blocs or small groups, each anxious to secure special legislation, has led a strong, virile people to the edge of revolution, and the German government, lacking the support of a well integrated majority of any party, continues to give serious concern to all Europe. It can be said that the "bloc" movement in Germany has spread to our own legislative bodies and to an extent that has made party control, whether Republican or Democratic, quite out of the question.

Assuming an administration chosen by a majority of the voters, whether it be Republican or Democratic, it is only reasonable to assume that party support will be forthcoming, but with our Congress split up in small groups representing the special interests of their local constituencies, it becomes more and more difficult to secure legislation that will serve all of the people.

Another and more disturbing phase of this growing disposition to secure an advantage by the few at the expense of the many, found expression a few weeks ago in the bonus "march to Washington" movement, where a small aggressive minority deliberately planned to coerce the law-making

power of the nation into giving them something that the overwhelming majority of the people do not think should be given at this time, when surrender to insolent demands would mean national disaster.

The bonus march movement theory was taken up a few weeks later by a minority element among the farming population of Iowa, South Dakota and Nebraska, who, without a Congress or state legislature in session to coerce, decided to take over the public highways, built for and paid for by all of the taxpayers, and to thereafter say what traffic should and should not use same. The argument was that farm produce, live stock and milk in particular, was being sold at less than a fair price. Such was doubtless the fact, but the produce was being trucked over the highways to market and sold by men of the same occupation, but of apparent general higher responsibility. The farm picketing movement was only another example of the bonus march attitude of mind, where a radical minority undertook to tell, not Congress, but a host of stock raisers and milk producers what to do with their own property.

The third and most illogical movement in the form of mob action, was that shown by several thousand mine workers reinforced by a number of women and immature boys, residing in Central Illinois. Some of these crusaders worked in the Central Illinois mines up to March 31st last, when the mines were closed due to the owners and the mine workers' Union failing to agree on a new contract. An army of invasion, estimated at from 5,000 to 15,000, were loaded up in automobiles, trucks and other vehicles, and started toward Franklin and Williamson Counties where some 25,000 men were working under the Union contract, the avowed object of the trek that of making the 25,000 stop work. The "army" after having been repeatedly notified to attend to their own affairs, were met at the county line by some 500 officers and citizens, the latter element consisting of Union miners, business and professional men of the two counties. The "army" was completely demoralized (by the 500 determined men), making the quickest possible retreat to their homes.

The theory that a small number of unhappy people can impose their desires and viewpoint on thousands, represents bloc or minority rule in its most unreasonable and vicious form. There is a

place in the world for minorities with constructive opinions, just as there is for individuals, but when an attempt is made to choke one's opinions down the throats of the great mass of the people who enjoy equal and at times an even greater measure of intelligence, using lawless violence as a weapon, then orderly government is in a fair way to be succeeded by anarchy. Italy developed in an acute way the situation that America is now experiencing when Mussolini seized the reins of government, and there has been little rebellion against government in that country since his accession. The mass of the American people prefer an orderly to a mob government, and the theory of mob action will pass out in a short time.

Carbon Monoxide Gas Hazard

THE cold season invariably ushers in a number of deaths occasioned by carbon monoxide gas poisoning, due to starting, or letting automobile engines run when the car is in a closed garage. This generally happens when the driver decides to leave the door closed while the engine is being warmed up, or when the driver undertakes to look for knocks, etc.

Carbon monoxide is odorless, colorless, and tasteless, and will not sustain either human or animal life, but will kill if the victim breathes any appreciable amount of the gas. The answer to this hazard that annually claims many lives, is to avoid contact with the gas, and as the majority of deaths from this cause now occur in garages, the safe rule is to NEVER LET AN AUTOMOBILE ENGINE RUN IN A GARAGE WITH GARAGE DOORS CLOSED.

It is also very unsafe to leave a child in a standing closed car while the engine is allowed to run, the gas often passing through defective exhaust connection, thence up through the car floor.

Additional Wage Contracts

THE Indiana coal miners and Union employees on September 10th completed a wage contract to run for three years, date of expiration March 31, 1935, the new agreement providing a flat reduction of 25 per cent on all day, tonnage and yardage rates, resulting in a base day wage of \$4.575 for eight hours. Immediately after the contract was signed, the work of cleaning up the mines was undertaken, and during the week September 12th to 17th, practically every Indiana mine resumed operation, working, however, on short time.

District 21, covering portions of Oklahoma, Arkansas and Texas, resumed Union relations with about 70 per cent of the coal operators located in Oklahoma and Arkansas, the new agreement providing for a basic wage scale of \$3.75 for eight

hours, a great many men working for as low as \$2.06 per day before the new agreement was made.

During the month of September, the unemployed and dissenting mine workers located in the central part of Illinois organized a dual union, under the name of the Progressive Miners of America. It does not seem to be difficult to change the name of the organization which the dissenting element in Illinois seek to establish and maintain. "The Illinois Miner," the official organ of the U. M. W. of A., District 12, Illinois, in its issue of September 10th, made the following interesting comment on the new organization:

"A new and dual miners' union has been formed. Its object is to supercede the United Mine Workers of America. There are not enough offices to go around, or somebody don't like the officers that are in and can't wait until the regular election time, or someone is dissatisfied with things as they are or think they have some new system or idea that will save society and so we must have a new union. Put me in control or accept my solution and we will revolutionize society and save the world. Attempts have been made to save the world that way a thousand times and still it is as it is. Society is builded on a competitive system and out of human beings with all of their selfish interests and human imperfections and if any one can build a perfect structure on that foundation and with the imperfect material at hand, he is indeed a genius such as the world has never known.

"This new union was born out of trouble. It will die in trouble. Trouble that will be in large measure of its own making. The regrettable features are that it will leave a scar on the old union that will weaken it and a lot of good men who are not really at fault will have to pay the freight while most of the slick fellows, some who are not even members, who stirred up the mess, will slip back into the shadow and duck out from under responsibility when the crash comes."

With a great majority of the mine workers located in Illinois and Indiana now composed, it is fair to assume that the industry, which has experienced a tempestuous period for several months, will continue to carry on peacefully, at least until next spring when a new wage agreement must be made in Illinois.

The Boy Scout Movement

THE warden of Sing Sing Prison in the State of New York recently made the statement that not one Boy Scout has ever been imprisoned in that institution. A checkup of the inmates of the Elmira (New York) reformatory shows that only

one person who had taken the Boy Scout pledge has experienced confinement in that institution.

With all America in a state of mental flux, mobs of men, women and boys challenging the accepted order of affairs, and defying the laws of God and man, it is cheering to know that among the world's millions of youth, there are such institutions as the Boy and Girl Scout organizations, led by earnest self-sacrificing men and women who can and do contribute to good citizenship and human betterment.

We look upon our Boy and Girl Scouts as splendid examples of upstanding youth who are not afraid to develop an idealism that makes for real citizenship.

Robert Muir Calls

MR. ROBERT MUIR, retired General Master Mechanic, called at the Omaha General Office on the morning of September 22. Robert left Los Angeles the Saturday preceding, and was headed for New York City to spend a couple of weeks, thereafter visiting his old haunts in Pennsylvania, returning to California via Leavenworth, Kansas, where he will visit a daughter, and thence through Rock Springs to Long Beach.

"Bob" is America's greatest individual automobile tourist, thinking nothing of hopping across the continent whenever the spirit moves him.

All Labor Is Tired of the Illinois Mine Workers' Tactics

THE best evidence of nation-wide disapproval of the "within the Union war" that has been going on for years in Illinois, is that expressed in the failure to obtain support for the last strike campaign. "The Illinois Miner", the organ of District No. 12, in its issue of September 3, sets forth the report of The Illinois Miners' Relief Committee in detail.

This organization, which was managed by Gerry Allard and Enoch Martin, directors, collected from April 26 to July 31, 1932, but \$1,205.08. Here are the sums disbursed:

Gerry Allard, salary and expenses.....	\$1,331.46
Pete Allard, extra office work.....	17.50
Printing and office supplies.....	1,299.80
Roy Groves, work in connection with protesting against referendum....	200.00
West Frankfort hospital for John Gdovin	15.00

Total disbursements\$2,863.76

Disbursements in excess of receipts..\$1,658.68

The Allard family paid their own salaries and personal expenses which totalled \$1,348.96, or twelve per cent more than they collected, while the State Union organization made up the deficit.

No one should criticize a good committeeman for taking "his" out before anything is spent in buying milk for the babies, but we do think that \$13.72 salary and expenses (Sundays and July 4th included) per day, was a fair price for a man while pleading the cause of hungry women and children.

Life Insurance

SIXTY-EIGHT million policies issued by the legal reserve life insurance companies of the United States with equities totalling \$20,200,000,000 are held by the American people. Approximately \$2,200,000,000 represents cash, office buildings and real estate used in the conduct of the business. The balance, \$18,000,000,000, is invested in bonds, stocks, policy loans and mortgages on real estate. When soap box orators seem to intrigue your soul with their specious flummery, hark back to your life insurance policy, the last possession a prudent husband and parent would care to jeopardize.

Life insurance companies own nearly three billion dollars of American railroad bonds, almost one-quarter of the entire amount of all those outstanding. They have over one and three-quarters billions of city, county, state, and United States Government bonds. They have loaned two and a quarter billions of dollars to farmers. Between six and seven billions have been loaned on first mortgages upon city homes and office buildings. Bonds of our gas, electric light, power and telephone companies account for two and a quarter billions more of life insurance dollars. Policyholders, personally, have borrowed over three billion dollars from the life insurance companies, pledging their policies as security.

The real capitalists in this country are not our comparatively few people of large means, but the butcher, the baker, the candlestick maker—the people whose savings are in the banks and are held by life insurance companies, and invested for them in enterprises which keep the wheels of our nation's business turning.

PASSING THE BUCK

Pat O'Hara and Mike Murphy had taken jobs at a colliery. Pat one morning broke his shovel when he was down the mine. He was too lazy, however, to take it to the surface with him, so he left it for his friend, writing on it in chalk:

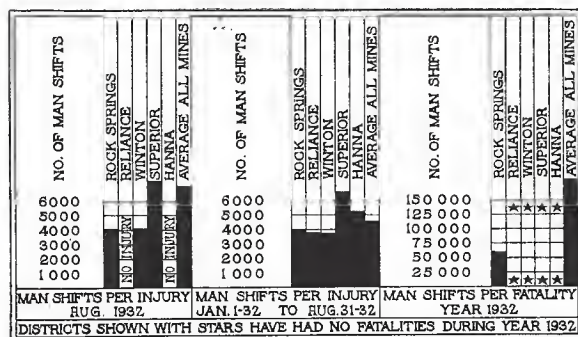
"Take my shovel up, Mike, I've forgotten it."

But friend Michael knew Pat of old, and refused to be caught by such an old trick. So he rubbed the message off and substituted one of his own:

"Take it up yourself. I've never seen it!"

Make It Safe

August Accident Graph



FOUR serious accidents occurred during the month of August, two in Rock Springs No. 4 Mine, one in Winton No. 1 Mine and one in Superior "E" Mine. The causes of these may be listed as follows: (1) fall of rock at the working face, (2) foreign bodies (mostly coal) in the eyes of two men, and (3) workman struck on the leg by a timber when the scraper was being dragged up a new scraper face. Three of the four injuries occurred at the working face.

There is no question but what goggles would have prevented the eye injuries. Surely this cannot be disputed. Probably the injury caused by the fall of rock could have been avoided, although a casual inspection made of the place by any of the officials before the accident occurred, would have no doubt been termed by them a safe place in which to work. This should bring most forcibly to our attention the proper method of sounding the roof and the correct way of setting the timber by all underground men. The workman injured at the scraper face will no doubt not have this happen to him again, and his injury should serve as a warning to all scraper men to keep in the clear when the scoop is moving up and down the face.

The Honor Roll mines for the month, that is, the mine or mines that had no fatal, serious or minor injuries to cause a loss of time to the injured work-

men, are as follows: Rock Springs No. 8 Mine, Reliance Nos. 1 and 4 Mines, Winton No. 1 Mine, Superior "B" and "C" Mines and Hanna Nos. 2, 4, and 6 Mines.

While the month's manshifts per injury record was far below that of July, yet a slight increase (238) in manshifts per injury was made in the eight-months' period over the seven-months' period.

This year, with the period ending August 31, there has been one fatal, 39 serious and 14 minor injuries underground and 5 serious injuries on the surface, or a total of 59 injured workmen.

The number of these accidents does not shock even a small community such as ours, probably because our minds are the same as those of the masses, a curious mixture of callousness and mawkish sentimentality. It shudders at the guillotine of revolutionary France, but refuses to get excited about this year's accident toll. The most vicious criminal on trial for life is the object of something akin to hero worship. Apparently blood shocks the public only when shed according to judicial processes.

Don't you think it is time that our accident toll, 59 injuries, should shock every employe in this organization? It would seem that any measures to stop our accidents would be justifiable.

BY MINES

AUGUST, 1932

Place	Man-shifts	Injuries	Man-shifts Per Injury
Rock Springs No. 4..	2,943	2	1,472
Rock Springs No. 8..	3,787	0	No Injury
Rock Springs Outside	1,410	0	No Injury
Reliance No. 1.....	2,129	0	No Injury
Reliance Outside....	717	0	No Injury
Winton No. 1.....	3,195	1	3,195
Winton Outside	914	0	No Injury
Superior "B"	1,965	0	No Injury

SERIOUS INJURIES IN AUGUST, 1932

Name	Nature of Injury	Period of Disability	District
Faustino Delauranti	Fracture of pelvis and right leg with bruises to body, left foot and ankle, and lacerations of groin and scalp.	Undetermined	Rock Springs No. 4 Mine
Bozo Knezovich	Ulcerated right eye.	Est. 30 days	Rock Springs No. 4 Mine
John Besso	Fracture of left leg.	Est. 70 days	Winton No. 1 Mine
Eugene Griglione	Ulcerated right eye.	Est. 30 days	Superior "E" Mine

Total number of days, estimated.....130 days

Superior "C"	1,887	0	No Injury
Superior "D"	31	0	No Injury
Superior "E"	2,121	1	2,121
Superior Outside	1,555	0	No Injury
Hanna No. 2.....	850	0	No Injury
Hanna No. 4.....	2,371	0	No Injury
Hanna No. 6.....	198	0	No Injury
Hanna Outside	1,996	0	No Injury

PERIOD JANUARY 1 TO AUGUST 31, 1932

Place	Man-shifts	Injuries	Man-shifts Per Injury
Rock Springs No. 4..	19,190	7	2,741
Rock Springs No. 8..	27,360	7	3,909
Rock Springs Outside	12,785	1	12,785
Reliance No. 1.....	16,818	4	4,205
Reliance Outside ...	5,697	2	2,849
Winton No. 1.....	26,415	9	2,935
Winton Outside.....	7,270	0	No Injury
Superior "B".....	13,897	1	13,897
Superior "C".....	13,340	1	13,340
Superior "D".....	247	0	No Injury
Superior "E".....	14,837	5	7,967
Superior Outside ...	10,696	1	10,696
Hanna No. 2.....	5,989	3	1,996
Hanna No. 4.....	16,134	4	4,035
Hanna No. 6.....	1,290	0	No Injury
Hanna Outside	13,552	0	No Injury

BY DISTRICTS

AUGUST, 1932

Place	Man-shifts	Injuries	Man-shifts Per Injury
Rock Springs.....	8,140	2	4,070
Reliance	2,846	0	No Injury
Winton	4,109	1	4,109
Superior	7,559	1	7,559
Hanna	5,415	0	No Injury

All Districts.....28,069 4 7,017

PERIOD JANUARY 1 TO AUGUST 31, 1932

Place	Man-shifts	Injuries	Man-shifts Per Injury
Rock Springs	59,334	15	3,956
Reliance	22,515	6	3,753
Winton	33,685	9	3,743
Superior	53,017	8	6,627
Hanna	36,965	7	5,281

All Districts.....205,516 45 4,566

Good Eyes That Do Not See!

There's an inside story to almost every accident—an extra chapter that very often is overlooked. It might well be entitled "Why?"

Consider Johnny's case for example. He was hurt badly while working around some material left by a construction crew. He stepped on a loose block left on the floor. His ankle turned and he went down beneath a heavy load of timbers.

That much is known, but it isn't all the story.

The material had been there for several hours. At least 20 men passed by. Most of them saw it. The others could have seen it. Any one of these men could have saved Johnny a lot of needless suffering and expense.

If we agree that one man can prevent such a tragedy by keeping his eyes open and his mind alert, just think what a hundred—or a thousand—employees can do in ridding their working home of accidents.

Old Man Accident's most active ally is the fellow who puts things off. Safety is everybody's business. To reduce accidents one must watch for hazards continuously and remedy unsafe conditions as he finds them.

In other words, doing one's best to prevent accidents means doing quite a bit more than just being careful for one's own sake.

—Shorty Sez Stories—No. 3,
National Safety Council.

August Accidents

FAUSTINO DELAURANTI—*Miner, Rock Springs, No. 4 Mine.* Fracture of pelvis and right leg, lacerations of groin and scalp with contusions to the left ankle, foot and hip. Period of disability undetermined. Faustino and his partner had cleaned up their working place and had it apparently well timbered. Faustino was standing between two props talking to another digger

"Worst Aid"

There are surer ways of getting your eye into trouble—but Not Many.



NEVER TRUST EYES TO ANYONE
BUT A DOCTOR.

while his partner was cutting down some top coal, when a large piece of rock fell from the top, swinging out two timbers and pinning him under the rock before he could get in the "clear".

Several factors contributed to the cause of this accident, viz.: the man's age, thickness of the coal seam and timbering. When first investigating the accident, it seemed almost unavoidable, but it is firmly believed that if more attention is paid to the proper tightening and setting of props and sounding and inspection of the roof by both the men and officials such accidents as this can be eliminated.

BOZO KNEZOVICH—*Miner, Rock Springs No. 4 Mine.* Injury to the right eye causing the formation of an ulcer on the eyeball. Period of disability estimated 30 days.

The injured claims that when he lifted a chunk of coal into the pit car, it struck another chunk and a piece of coal flew into his eye. This is a type of injury that can be easily avoided by the wearing of the spectacle type of goggle. It must be remembered by all workmen that whenever a foreign body enters the eye and causes any irritation, they should report to their physician immediately for treatment.

JOHN BESSO—*Scraper Loader Faceman, Winton No. 1 Mine.* Fracture of left leg above the ankle. Period of disability estimated 70 days. John was directing the movement of the scoop up the face of a new scraper place when the scoop struck a small timber that was covered with machine cuttings, swinging the end of the timber around and striking John on the leg and causing a painful fracture and dislocation.

This is the first time that we have had an injury occur in a scraper face in this manner. John is not at fault for having received his injury. He was performing his work in the best way possible, but his injury is the fault of other men working in the scraper face, mainly the timbermen and machine men. If timbermen left the prop laying in the scraper way, they should have placed it "in the clear" and the machine men should have by all means not covered it up with the machine cuttings. This accident can be laid to only two things, carelessness and poor house-keeping.

EUGENE GRIGLIONE—*Faceman, Superior "E" Mine.* Corneal ulcer of right eye. Period of disability estimated 30 days. Injured claims that while shoveling coal into a pit car on the haulage road some foreign bodies blew into his eye. At the time this is being written, it appears that the eye injury to Eugene may result very disastrously; in fact he may lose the sight of his eye. Again it must be stated that this injury was avoidable by the wearing of goggles. Foreign particles in the eye are always dangerous and they should be treated promptly.

Depth of Mines

SEVERAL years ago an article was contributed to this publication bearing on the deepest mine in the world, etc., and some later figures having come to our notice, it was believed they might be of sufficient interest to permit the reprint at this time of the accompanying data which was lifted from "Mining and Metallurgy," August issue:

"Official communications state that on April 9 the Morro Velho Mine of the St. John del Rey Mining Co., in Brazil, had attained a vertical depth of 7,733 ft., and that on February 10 the Turf shaft of Robinson Deep, on the Rand, was down 7,730 feet. Now the question is, did the boys on the Rand sink 3 feet or more from February 10 to April 9, and which crew has been burrowing the deepest since then? Seriously speaking though, it is indeed strange that the deepest two mines in the world should be at almost exactly the same depth.

"The City Deep, on the southern Rand, is also pretty well down, with a shaft that at last accounts was 6,900 feet deep. However, third honors should go, in all probability, to the Champion Reef mine, of the Kolar Gold Field group in southern India, whose deepest shaft, on February 29, 1932, was 7,110 feet below the shaft collar. India also has two other deep mines, the Ooregum, whose shaft is at present bottomed at 6,970 feet, and the Mysore, whose seventy-seventh level is at 6,270 feet. The above, of course, are all gold mines.

"In North America, the deepest working is in a copper mine in the upper peninsula of Michigan, the Quincy, which has sunk to 6,150 feet. At the Conglomerate Mine of Calumet & Hecla, a depth of 5,683 feet has been attained. North America's deepest gold mine is the Kennedy out on the Mother Lode in Amador County, California. Andrew Kennedy discovered this mine back in 1856. Its vertical shaft was bottomed at 4,650 feet. At this point a 500-foot crosscut was necessary to reach the orebody, so it was decided to sink a new shaft at depth, following the greenstone footwall, parallel to the orebody. Crosscutting is now being carried on from a station in this new shaft at a vertical distance of 5,150 feet below the surface—just short of a mile.

"Geothermal gradients of these deep mines vary. At the bottom of the Kennedy, the temperature is 82° F. At 5,000 feet in Michigan the rock temperature is about 90° F. The U. S. Bureau of Mines has just issued a technical paper on natural ventilation of Michigan copper mines, and temperature conditions in the same district are also discussed in a current Institute paper. At the St. John del Rey, in Brazil, half a mile deeper, a cooling system had to be installed not long ago.

"Man has burrowed into the earth further than any mine shaft has been sunk, however. If memory serves correctly, drills have penetrated to over 10,000 feet in the search for oil."

The Crucifixion

By A LAYMAN

"CRUCIFY Him! Crucify Him!" Such were the cries that rang in the ears of Pilate, the Roman Governor, as he stood aside, bitter doubts assailing him. Jesus had received the scourging that invariably preceded crucifixion and as the Christ stood before him, a soldier's scarlet cloak partially covering his lacerated and bleeding body, with a crown of thorns pressed into his bleeding brow, Pilate was stricken with pity. The Roman did not know what to think of Jesus. He had never seen a man like Him before. Jesus had remained silent under the bitter scourging beneath which a stronger and rougher body would have succumbed. And then there was a strange light in the eyes of this Man who had called Himself the Son of God; something beautiful, awesome, eternal. Then the strange dream that had come to Pilate's wife moved him to superstitious fear. What if this Man were the Son of God? While Pilate stood hesitant, the mob placed a reed in the right hand of Jesus, and mocking Him, they cried out, "Hail, hail, King of Jews." Yet stood the patient Christ, His face and body livid white, while the red blood dripped from his tortured back and limbs. Torn with emotion, perplexity, Pilate again approached Jesus saying, "Whence art Thou?"

"John XIX, 4-16.

But Jesus gave him no answer.

Pilate therefore saith unto Him, Speakest Thou not unto me? Knowest Thou not that I have power to release Thee, and have power to crucify Thee?

Jesus answered him, Thou wouldest have no power against me, except it were given thee from above: therefore he that delivered me unto thee hath greater sin.

Upon this Pilate sought to release Him: but the Jews cried out, saying, If thou release this man, thou art not Caesar's friend: every one that maketh himself a king speaketh against Caesar.

When Pilate therefore heard these words, he brought Jesus out, and sat down on the judgment-seat at a place called The Pavement, but in Hebrew, Gabbatha. Now it was the Preparation of the Passover: it was about the sixth hour. And he saith unto the Jews, Behold, your King!

They therefore cried out, Away with Him, away with Him, crucify Him.

Pilate saith unto them, Shall I crucify your King?

The chief priests answered, We have no king but Caesar.

Then therefore he delivered Him unto them to be crucified."

"If thou release this Man, thou art not Caesar's

friend." With these words hurled at him, Pilate suppressed all that was merciful within his soul. The Caesar of that day was Tiberius, and the power of the spy, the informer, is always strong under a despotic government. Had not the son of Herod been of late deposed on the testimony of certain enemies? To be found guilty of treason meant confiscation of property, then exile, perhaps death. A victim of his fears, Pilate delivered Jesus into the hands of His enemies.

"John XIX, 17.

They took Jesus therefore: and He went out, bearing the cross for Himself, unto the place called the place of a skull, which is called in Hebrew Golgotha; * * *"

"Luke XXIII, 26-32.

And when they led Him away, they laid hold upon one Simon of Cyrene, coming from the country, and laid on him the cross, to bear it after Jesus."

And so Jesus started down the road that led to execution and death, that Via Dolorosa that has been hallowed by the sorrowful thoughts of many, many millions, whose minds have dwelt on the eternal tragedy of the Crucifixion. There is but one other pathway in all the world that at all approaches this Roman road that descended from the Pretorium into Tyropoeon Valley, to rise up to the place of public execution known as Golgotha, "The Place, The Hill of Skulls." On the shore of England, looking toward France, there is a paved roadway over which more than two million British youth walked to their end, many of them with mothers, sisters, sweethearts, clinging to their garments, crying an eternal farewell. But the two millions who went out to die in the twentieth century went as soldiers, erect, eyes front, filled with strength and courage, and not as felons, scourged and dragging a cross of wood. Theirs was the path of glory even though it led to the grave.

At the head of the column rode a Roman centurion, and behind him walked four soldiers, surrounding Jesus and the two criminals sent with Him to meet their death. The red robe had been stripped from the shoulders of Jesus and He was again covered with His own garments, but His head still bore the crown of thorns and on His neck they had hung a tablet reciting His condemnation. The procession moved onward, Jesus carrying the upper portion of the heavy cross on which He was to die, on His lacerated and yet bleeding shoulders, the lower end dragging on the roadway. Condemned criminals were always required to drag their own crosses to the place of execution, but Jesus, whose body had been exhausted by the agony of Gethsemane and the merciless scourg-

ing given Him by the Roman soldiers, fell to the ground, incapable of carrying the inhuman load any further. It was then that Simon, the Cyrenean Jew, returning from the country met the procession, and the soldiers, noting his humble dress, ordered him to take up and carry the cross that Jesus had fallen under. It is in just such a simple way that men before unknown have often won immortality. This service commanded of him lifted Simon's name out of world obscurity and placed it among the unforgotten.

The hour had come. The cruel fanatical priesthood with a mob of onlookers, thirsted for the life of the Man Who had dared to call Himself the Messiah, the Son of God, and so they stripped Him of His garments for the second time, and while some of the brutal soldiery cast lots for His clothing, others laid Him unresisting on the rough cross, and through His hands and feet iron spikes were driven. Similar treatment was likewise accorded the two condemned men who were to die with Him. On the top of the cross was fastened the tablet taken from Christ's neck, and on which was written in Hebrew, in Latin, and in Greek, the words:

JESUS OF NAZARETH, THE KING OF JEWS

Next the three crosses were raised to the perpendicular and the priests and the mob again spoke words of mockery, saying:

"Matthew XXVII, 39-44.

He saved others; Himself He cannot save. He is the King of Israel; let Him now come down from the cross, and we will believe on Him. He trusteth on God; let Him deliver Him now, if He desireth Him: for He said, I am the Son of God.

And the robbers also that were crucified with Him cast upon Him the same reproach."

"Luke XXIII, 36-37, 39-43.

And the soldiers also mocked Him, coming to Him, offering Him vinegar, and saying, If Thou art the King of Jews, save Thyself.

And one of the malefactors which were hanged railed on Him, saying, Art not Thou Christ? save Thyself and us.

But the other answered, rebuking him, said, Dost thou not even fear God, seeing thou art in the same condemnation? And we indeed justly; for we receive the due reward of our deeds; but this man hath done nothing amiss.

And he said, Jesus, remember me when Thou comest in Thy Kingdom.

And he said unto him, Verily I say unto thee, To-day shalt thou be with Me in Paradise."

The bitter mocking crowd began to fade away, stealthily, one at a time, their purpose accomplished.

"John XIX, 25-27.

But there were standing by the cross of Jesus His Mother, and His Mother's Sister, Mary the wife of Cleopas, and Mary Magdalene. When Jesus therefore saw His Mother, and the disciple standing by, whom He loved, He saith unto His Mother, Woman, behold, thy Son! Then saith He to the disciple, Behold, thy mother! And from that hour the disciple took her unto his own home."

It was now about the sixth hour, and darkness crept over Calvary. The outlines of Olivet, the towers and domes of Jerusalem grew dim and indistinct. What was happening? For three long hours Jesus, with His exquisite capacity for pain, suffered in the twilight that had come over the day not yet spent. At the end of the ninth hour, with the sun's light almost completely failed, His delicate, sensitive nature, unable to endure further, caused Him to cry out, "Eloi, Eloi, lama sabachthani?" (My God, My God, why hast Thou forsaken me?)

"Mark XV, 34-35.

And some of them that stood by, when they heard it, said, Behold, He calleth Elijah."

"John IX, 28-29.

After this Jesus, knowing that all things are now finished, that the Scripture might be accomplished, said, I thirst.

There was set there a vessel full of vinegar."

"Matthew XXVII, 45-49.

And straightway one of them ran, and took a sponge, and filled it with vinegar, and put it on a reed, and gave him drink.

And the rest said, Let be; let us see whether Elijah cometh to save Him."

"Luke XXIII, 46.

And when Jesus had cried with a loud voice, He said, Father, into Thy hands I commend My spirit."

"John XIX, 30.

When Jesus therefore had received the vinegar, He said, It is finished: and He bowed His head, and gave up His spirit."

There remains but little more to be said. The Jews who had brought about the death of Jesus immediately turned their thoughts toward the Preparation for the fast of the Passover, and so they asked of Pilate that the legs of the three crucified ones might be broken, and that their bodies might be taken away.

"John XIX, 31-37.

The soldiers therefore came, and brake the legs of the first, and of the other which was crucified with him: but when they came to

Jesus, and saw that He was dead already, they brake not His legs: howbeit one of the soldiers with a spear pierced His side, and straightway there came out blood and water.

And he that hath seen hath borne witness, and his witness is true: and he knoweth that he saith true, that ye also may believe. For these things came to pass, that the Scripture might be fulfilled, A bone of Him shall not be broken. "And again another Scripture saith, They shall look on Him Whom they pierced."

"Mark XV, 42-45.

And when even was now come, because it was the Preparation, that is, the day before the Sabbath, there came Joseph of Arimathaea, a councillor of honourable estate, who also himself was looking for the Kingdom of God; and he boldly went in unto Pilate, and asked for the body of Jesus.

And Pilate marvelled if he were already dead: and calling unto him the centurion, he asked him whether he had been any while dead. And when he learned it of the centurion, he granted the corpse to Joseph."

"John XIX, 38-42.

He came therefore, and took away His body. And there came also Nicodemus, he who at the first came to him by night, bringing a mixture of myrrh and aloes, about a hundred pound weight.

So they took the body of Jesus, and bound it in linen cloths with the spices, as the custom of the Jews is to bury."

Within the place in which Jesus was crucified there was a garden, and in the garden a new tomb carved out of the solid rock, a tomb that Joseph of Arimathaea had prepared as was the custom of the well-to-do, for his own burial when his time was come. Within Joseph's tomb was laid the body of Jesus, and Joseph rolled a great stone to the door of the tomb and departed, as had Mary, the Mother of Jesus; but Mary Magdalene, the sinner who had been forgiven, and the other Mary, remained for a time, to at last take their leave. The chief priests on the day succeeding the crucifixion appeared before Pilate saying, "Sir, we remember that that deceiver said, while He was yet alive, 'After three days I arise again'. Command therefore that the Sepulchre be made sure until the third day." Pilate made answer, "Ye have a guard; go your way, make it as sure as you can." And so accompanied by a guard, they returned to the Sepulchre, sealing the stone that Christ's disciples might not take away His body.

Within the shelter of a meanly cottage where lived one of the hated believers, a mother stood in tearless pain, the Mater Dolorosa, whom the whole Christian world has never ceased to think of as other than the one woman who stands above the countless millions that motherhood has honored.

For thousands of years, women have been the mothers of men but was not Mary the mother of the Son of God? Her Son was The Messiah, He was her Lord, born to be the Saviour of all mankind. But now she can only think of Him as the infant who not so long before lay close to her breast. Then her thoughts turned to the Boy who ran her simple errands, doing for her the things that dutiful boys have always done for their mothers; the Boy who challenged the defamers of the temple and the priests who tolerated the sacrilege, showing His scorn and contempt for the selfish and meanly things done within the House of God. Then the days of toil spent in the little carpenter shop in Nazareth after Joseph had died, flashed through her memory, and after all of this, what had she left to her; only His dying words, "Mother, behold thy Son! Son, behold Thy mother." And so, with her memories, she entered the humble house of John the gentle disciple, the most beloved of all among the followers of Jesus.

(To be continued.)

In the Firelight

The fire upon the hearth is low,
And there is stillness everywhere,
And, like winged spirits, here and there
The firelight shadows fluttering go.
And, as the shadows 'round me creep,
A childish treble breaks the gloom,
And softly from a farther room
Comes: "Now I lay me down to sleep."

And, somehow, with that little prayer
And that sweet treble in my ears,
My thoughts go back to distant years,
And linger with a dear one there;
And as I hear my child's Amen,
My mother's faith comes back to me—
Crouched at her side I seem to be,
And mother holds my hands again.

Oh, for an hour in that dear place—
Oh, for the peace of that dear time—
Oh, for that childish trust sublime—
Oh, for a glimpse of Mother's face!
Yet, as the shadows 'round me creep,
I do not seem to be alone—
Sweet magic of that treble tone
And "Now I lay me down to sleep!"

—Eugene Field.

Wyoming Fossil Fish

Dr. H. S. Knight, in a recent illustrated lecture on geology before a Laramie class, told them how a fresh water lake in Western Wyoming was filled 50,000,000 years ago by a volcanic eruption. Fish were entombed and preserved in the slabs of lava just as human beings and furnished houses were preserved at Pompeii and Herculaneum 2,000 years ago.

Engineering Department

The First Long Distance High Tension Transmission

By D. C. MCKEEHAN.

(The material for this article was taken from "The Pioneer Work of The Telluride Power Company," by P. N. Nunn, published in Cassier's Magazine in 1905, and loaned to me by Mr. J. A. Hale, Chief Engineer, Utah Power and Light Company.)

IN THE light of present achievements in high-tension, long distance electric power transmission, the early work of the Telluride Power Company, and further developments in the immediately succeeding years, commands unqualified admiration. It was work of daring enterprise, pioneer work in the face of discouraging comment from almost everywhere, making its successful outcome all the more gratifying for those who undertook it, and interesting to the profession generally.

During the winter of 1890, the year preceding the famous Frankfort-Lauffen experiment in Germany, apparatus was installed for the first commercial high-pressure, alternating current power transmission of the world. From that beginning has grown The Telluride Power Company. The mining district surrounding Telluride, Colorado, is at the same time one of the most rugged and one of the richest in the Rocky Mountains; but the inaccessibility and the consequent cost of producing power caused the financial failure of many important enterprises in the early days of its history. The statement made in the Annual Report of the Treasury of the United States, in 1901, that "for the growth of its mining industry San Miguel County is indebted to the Telluride Power Transmission Company more than to any other agency," is borne out by the fact that at the present time all the important mines and mills of the district are operated by power furnished by this Company.

The Gold-King mill, situated at an altitude of 12,000 feet, where the cost of fuel for steam power had become prohibitive, was the first to be operated by means of this power. This property had been attached in 1888 to satisfy a continued deficit in operation, due to the excessive cost of power, whereas a handsome profit would have been realized had power been secured at not to exceed a hundred dollars per horse-power-year.

Down in a deep gorge of the valley, over 2,000 feet lower, but less than three miles away, two mountain streams formed at their confluence the South Fork of the San Miguel River, offering cheap and continuous power. A stay of proceedings was

secured; and, as means of transmitting this power, cable drive, compressed air and continuous-current electricity were successively investigated. The limitations of each were apparent, while the advantages of alternating current and higher pressure became gradually recognized, and a decision was reached to attempt their use. The decision was due less to the immediate saving in copper than to a keen sense of the limitation of continuous current, and faith in the final success and ultimate superiority of alternating current.

During the investigation which followed, while selecting apparatus, little but incredulity or ridicule was encountered. Eastern investors of the enterprise were annoyed by the predictions of prominent engineers, and discouraged by their insistence, that the experiment would prove a miserable failure and the expenditure go for naught. It was said that there was no alternating-current motor; that oil insulators must be used and that the line must be fenced in. However, a generator and a motor for 3,000 volts and of 100 H. P. each were ready for trial in the fall of 1890. Difficulties caused by ice at 40 degrees below zero, by speed control over unusually high water pressure, by avalanche, by blizzard, by electric storms unknown in low altitudes and scores of other difficulties now generally forgotten but then most serious, marked every step of progress. Notwithstanding all of these, unqualified success from the beginning caused gradual and constant growth, until at the present time The Telluride Power Company and its allied industries have six power stations and nearly a thousand miles of line in Colorado, Utah and Montana.

Following its pioneer power transmission, it made practical experiments as early as 1895 with pressures which have never, even yet, been exceeded; and for three years it operated commercially the highest-pressure transmission of the world. Thus the record of its work becomes an important chapter in the history of power transmission; but it must readily be seen that the limit of this paper precludes the possibility of describing even in briefest terms, all, or even a substantial part, of its pioneer work.

The initial installation, purchased through Mr. F. B. H. Paine, comprised a generator installed in a rough cabin upon the site of the present Ames Station and belted to a 6-foot Pelton wheel under 320-foot head, and a motor at the mill 2.6 miles distant. The two were identical Westinghouse single-phase alternators of 100 H. P., the largest then made. The generator was separately excited, while the motor was self-exciting. Both carried twelve-

part commutators and were slightly compounded through current transformers upon opposite spokes of their armature. The latter were iron clad, or "T" toothed, wound with twelve simple coils in cells of fuller-board and mica. Switchboards were matched and shellacked pine sheathing, and the bases of instruments were dry hardwood. Only voltmeters and ammeters were used, both of the solenoid and gravity-balance type, in black walnut cases with window-glass fronts. Circuits were closed with jaw switches and opened by arc-light plugs. The line carried two No. 3 bare copper wires mounted upon short Western Union cross-arms and insulators. The copper cost about \$700, about one per cent of the estimated cost for continuous current.

The main motor was brought to synchronous speed by a singlephase induction starting motor, which received its current at full line voltage. The current taken was more than full-load current of the main motor. Even this starting motor required starting by hand, its torque being zero at starting and so feeble at low speeds that when cold it could only with the greatest difficulty be persuaded to pull up to speed its belt and loose pulley. Nor could it at speed start the main motor without help, and even then it became so hot that its short-circuited secondary frequently burned out.

Another motor of 50 H. P. was soon added. While in other respects similar to the first, this motor was intended to be self-starting, with armature and field in series through current transformer; and, on account of its frightful flashing, it was fitted with a special eight-part commutator of non-arcing metal. This feature, however, proving a failure, was soon replaced by a separate starter.

The need of wattmeter or power-factor indicator not having been at that time recognized, motor field charges were adjusted for least main current. This current was accepted as having unity power factor, and, therefore, as the measure of actual power.

Everything was extremely simple from water wheels to motors; and except for lighting, the plant ran smoothly and steadily thirty days and more without a stop. The report made in the East by associates of the enterprise that at Telluride a hundred horse power was being successfully transmitted nearly three miles over No. 3 copper, with less than five per cent loss was received with the utmost incredulity.

During the autumn of 1892, a 600 H. P. generator of the same characteristics was installed, and a 250 H. P. motor for the mill on Bear Creek, ten miles from the generator. Early in 1894 a 50 H. P., and during the fall a 75 H. P. motor were placed in Savage Basin, fourteen miles from the Power House. The former was soon replaced by a 100 H. P. motor, and in 1895 another 100 H. P. motor was set up at Pandora.

Except as to size these motors were substantially identical. The 250 H. P. motor was badly designed,

and the pole pieces were of cast iron. Its starting motor was insufficient, and was, therefore, soon replaced by one having split-phase secondary with external resistances. Marble bases with brass trimmings replaced wooden bases for instruments, and such elegance demanded highly polished slate switchboards of paraffined oak. Imposing marble rheostats were mounted at switchboards like manuals upon grand organs. Fuse blocks, the only protective devices, became marble slabs with duplicate aluminum strips. The first synchrophone came with the 75 H. P. equipment.

Owing to its altitude and geographical position, the Telluride district is peculiarly subject to atmospheric disturbances. Over a hundred distinct lightning discharges have been counted within a single hour, and such occurrences caused more discouragement than any other obstacles. A neighboring continuous-current plant transmitting but little more than a mile, carried several extra armatures; and even then it was so frequently compelled to close down during the daily storms of the rainy season, that the company was eventually bankrupted. The alternating plant might have suffered a similar fate, had it not been for its "T" toothed armatures and replaceable coils, eight of which were successively burned out and replaced on one motor within a single week. To place a coil and drive its keys home required such bending, clamping and pounding as inevitably resulted in injury to insulation, and only by the greatest care could replaced coils be made to withstand a test adequate to the 3,000 volts employed. For protection from lightning several types of manufactured arrestors, then various home-made devices were tried, ending with a simple gap in series with a score or more of fuse blocks in parallel, arranged about a radial commutator switch turned from point to point as the fuses were blown by successive discharges. From the first these conditions caused the greatest apprehension as to the commercial success of electric power transmission, until Mr. Alexander J. Wurts, during a stay of several months with the company, gave the protection of his now well-known non-arcing arrestor.

No transformers were used between machines and line, the largest transformers at first being 2-kw., or 40-light. Aside from the effects of lightning, even today 3,000 volts upon the winding of small high-speed armatures requires first-class insulation. Frequent grounds were prevented by deep insulating foundations of paraffined wood. To prevent short circuits within the coils, their cells, just before placing, were poured full of shellac, and the entire armature afterward baked for several days. By this means the 50 H. P. motor ran without trouble for a full year in a room dripping with moisture.

A lightning transformer received in 1891, was rated at 5 kw. Theretofore transformers had been rated in lights, and generators in horse-power. This transformer was immersed in engine oil and marked

an epoch in the Company's history. Lightning frequently punctured it, causing its fuses to blow without other apparent injury. It remained in service for years. All others were soon likewise immersed. Four 500-light, dry Stanley transformers, purchased in 1892 for lighting Telluride, were broken down by the thunder storms of the following spring. When repaired they also were immersed in engine oil, and gave no further trouble during the three years they remained in service.

Alternators were paralleled at Telluride in the spring of 1893, and thereafter they were so operated with full load upon the smaller and regulation upon the larger machine.

Manipulation at switchboards or at brushes involved direct handling of 3,000 volts, a rather high switchboard pressure even now. It was a rule that every attendant should keep one hand in his pocket while working with the other. It is pleasant to record that during these years no loss of life and but few accidents occurred.

There being no other circuit breakers, it was necessary, when a motor dropped out of step, to break the circuit with the single arc-light plug. This always drew a heavy, vicious arc, which on the big motor frequently held to the full length of the 6-ft. cable, and then sometimes required a "whiff" from the attendant's hat. When not broken promptly it frequently involved the entire switchboard and shut down the plant.

Duties of this nature required considerable skill and cool heads, and in order to operate the plant continuously day and night fifteen or twenty competent attendants were required. To fit young men for these positions a course was arranged during which they were taught something of machinery; of shop work in metal and wood; and of wiring, insulating, and repairing, while receiving such assistance in daily study as conditions permitted. A technical library, including the electrical papers, and a conveniently fitted testing room were always open. Each student was then given a short laboratory course in graphic treatment of alternating-current theory. This is said to have been the first systematic effort made by a corporation of this nature to train its employees for responsible positions.

Although the plant, as a whole, was an unqualified commercial success, no explanation need here be made as to why its apparatus was replaced by the induction system as soon as the latter had been perfected. This marks the limit of the most extensive, single-phase, synchronous plant ever operated. With one or two motors its operation was not difficult; but each motor added to the system brought increased demand for care and skill. The causes of difficulty were not understood then, as now, nor was the effect of power factor fully appreciated. Lack of both wattmeters and power-factor indicators left the adjustment of field charges to the judgment of the operators. The power-factor of each motor being dependent not only upon its own adjustment but upon that of all, the closest atten-

tion and co-operation were necessary, in marked contrast with the simplicity of operation of induction motors. Disturbances due to starting motors were especially trying; and the unqualified success attained, notwithstanding defects of apparatus and system, is attributed now, far more than then, to the skill and vigilance of the operators in this new and fascinating field.

The Tesla system, substituted for the synchronous in 1896, comprised two 600-kw., 60-cycle, 500-volt, two-phase generators, direct connected to water wheels under 600 and 900-foot head, respectively, and an equal capacity of raising and reducing transformers and of two-phase, 220-volt induction motors. The twelve 100-kw., step-up transformers were connected in pairs, two-phase-three-phase, for three-phase 10,000-volt transmission. These transformers were worthless; all broke down within a year, and one or more were always undergoing repairs. Break-downs occasionally caused sufficient explosion to lift a cover or splash the oil. The wood-work soon became saturated, and hot metal from the near-by main fuses frequently started fires endangering the wooden power house. A masonry transformer house in two compartments was, therefore, constructed, and into it transformers were moved—this being the first known case of isolation of oil transformers on account of fire risk.

The power house in Ilium, situated six miles below Ames on the same stream and using the same water, was built in 1900, and contains one 1,200-kw., revolving field, General Electric generator direct connected to two impulse wheels under 500-ft. head. Transmission lines extend both to Ames station and to points of distribution, providing the insurance of duplicate transmission. Any section of line can be cut out for repair, or either power house shut down, without interrupting the service. Junctions, other than generating and distributing points, are equipped with open air switches mounted upon standard line insulators and operated from platforms similarly insulated.

Junction houses at distributing centers provide for a branch line to each customer, which is equipped with switches, fuses and a set of five record-making instruments—a volt-meter, two ammeters and two wattmeters. The power company thus secures upon its own property a continuous, accurate and satisfactory record of each load.

The long spans crossing canyons and divides surrounding Savage Basin are worthy of note. These divides are bare ridges at an altitude of 13,000 feet, inaccessible in winter and swept by frequent snowslides. Spans up to 1,150 feet are used in order to reach safe points for supports. A number of these supports, although simple and inexpensive, have stood for years without repair. The longest span is No. 1 hard-drawn copper, supported by half-inch plow-steel cable, both carried by the same insulators. The deflection is approximately 35 feet, on a slope of 31 degrees. Another is of $\frac{3}{8}$ -inch soft-iron cable, 1,120 feet long and

has been in service five years. A third, 660 feet long, is of hard drawn copper only, having 25 ft. deflection. The strain insulators in all cases are a series of the usual line insulators and pins, upon a longitudinal arm hinged to permit adjustment to span motion. They are simple, inexpensive and entirely successful.

A 10,000-volt underground transmission was put in operation at the Gold King mine in 1896. Power was carried through an unusual tunnel 1,300 feet long, upon bare copper conductors 12 inches apart on standard line insulators, to a deep mine hoist equipped for electric power. The tunnel was always dripping with water; but although slight brush discharge or halo was at times observed, no trouble was experienced during the several years of operation.

An interesting installation to which power is furnished is that of the well-known Camp Bird Mine, near Ouray. Nineteen rotaries and motors, in sizes up to 150 kw., drive crushers, Huntingtons, concentrators, compressors, pumps and hoists, aggregating about 1,000 kw. Two underground transmissions, each a mile in extent, are in operation. Continuous current at 550 volts from two rotaries and from a 650-ampere-hour storage battery operates three deep-mine hoists of 150 H. P. An installation designed by Mr. C. S. Ruffner, makes use of alternating current transmitted at 10,000 volts through paper-insulated, lead-covered cable, for the purpose of operating two 50 H. P. pumps.

The success of the original plant has been the means of a search for other water powers in the west.

Today long periods of perfect operation, monotonous in their uneventfulness, have proven beyond question the success of high pressures for long distance power transmission.

The Use of Aluminum Alloy Metals is Increasing in Industrial Construction

By C. E. SWANN

ALUMINUM, a metal discovered by Woehler in 1827, as a gray powder, but in 1847 in the form of small, glittering metallic globules. In 1854, H. St. Clair Deville isolated aluminum into a state of almost perfect purity. He found that aluminum could be prepared in compact form at a comparatively small expense. It is a white metal, somewhat resembling silver, but possessing a bluish hue, which reminds one of zinc. Exposed to dry or moist air, it is unalterable, and does not oxidize or tarnish like most common metals. Salt water affects it less than it does silver, tin or copper. Neither cold nor hot water has any action upon it. When cast into molds, it is a soft metal like pure silver, but when hammered or rolled, it becomes as hard as iron and its density increases. It is, therefore,

a very light metal, being lighter than glass, and only one-fourth as heavy as silver.

Aluminum has, in recent years, come into common use for culinary utensils and other domestic uses and its use is rapidly increasing in manufactured articles where strength and lightness are requisites. It is especially valuable in the making of aeroplanes and automobiles. Not being acted upon by organic secretions, it is used for optical, surgical and chemical instruments and apparatus. Aluminum leaf and wire may be employed with great advantage in place of silver leaf for decoration, or silver wire for embroidery. Recently it is being used in shipbuilding, especially for torpedo boats. Unsuccessful efforts to cast aluminum for cooking vessels, such as pots and pans, had often been made until 1895 when aluminum was, weight for weight, three times the price of copper, but, bulk for bulk, the cheaper metal. In 1855 Napoleon III paid the expense for making industrial use of aluminum at Javel. Many other manufacturing of aluminum were also started about the same time in France. In 1856 Alfred Mounier produced aluminum at Camden. In 1857, the price of aluminum was from \$28 to \$32 a pound. Between 1862 and 1877 it ranged from \$12 upward, and when in 1883 electrical methods of production were used, the price of aluminum was reduced to less than one dollar. In recent years it has dropped to a quarter and even a fifth of that price.

The sources most used for the production of aluminum are bauxite, a mineral first found near Baux, but since then found in Styria, in Austria, in Ireland, and in many places in the United States; and cryolite, found on the West coast of Greenland. There is no other useful metal, iron not excepted, which is so widely scattered over the earth and which occurs in such abundance.

The aluminum bronzes, now becoming so generally introduced, are the alloys of aluminum and copper, in which the amount of copper considerably exceeds that of aluminum. The value of these aluminum bronzes consists in their non-corrosive properties and in their strength.

(*) "Two qualities of aluminum always come to mind with mention of the name, its light weight and its freedom from rust, or corrosion, under many conditions.

"Scientific and industrial research has had a large part in the somewhat romantic and spectacular progress of the adaption of this metal to a great variety of practical uses. Not the least of the steps in this progress has been the development of strong and relatively hard alloys and methods for heat-treating them to improve their qualities for certain uses.

"Aluminum means cooking utensils in the household. Without its alloys aircraft would not be practicable on the present day scale. Business offices are becoming familiar with aluminum furniture. Watches have been made of aluminum.

(x) Research Narratives of The Engineering Foundation May 15, 1932, issue.

Pipes, steam radiators and ornamental metal work are on the market. Within two or three years even the conservative fields of railroad and highway transportation have been entered. Saving of weight and resistance to corrosion offer substantial savings, visible on the ledger. Hence the possibilities interest the financial as well as the operative branch of business management.

"It costs as much to haul a pound of vehicle as a pound of pay load. It takes as much energy to get a pound of vehicle into motion, and it wears the brakes as much to stop a pound of vehicle, as a pound of pay load.

"Commerce requires transportation in large quantities of a number of solids and liquids which so rapidly corrode the metals heretofore practically available for cars that replacements were frequent and costly. Coal, sulphur and certain acids are a few of the trouble-making but important cargoes.

"In December, 1931, the Alcoa Ore Company, of Pittsburgh, Pennsylvania, put into service ten 70-ton hopper cars with aluminum bodies. They were used for hauling coal, sulphur and bauxite, the ore of aluminum. They are 42 feet long over all, 40 feet inside the body. Their inside width is 9½ feet, and their height from rail to top of body is 10½ feet. The running gear is of steel and iron, to satisfy existing regulations, although engineering considerations would have permitted aluminum for some of these parts, further reducing weight. Each car weighs 38,900 pounds, 21,200 pounds less than if built of the heavier, easily corrodible metals.

"In selecting aluminum alloys, attention was given to strength and other structural requirements, to formability in making the cars, and to resistance to corrosion caused by atmosphere or cargo. The cars were successfully built and have been giving satisfaction in the brief service to date.

"For the United States Bureau of Mines fuel yard in Washington, six automobile dumping trucks were built in 1931 to haul coal, with bodies wholly of aluminum, excepting the hoisting mechanism. These bodies are 11 feet long, 7 feet wide and 3 feet 9 inches high inside. They weight 1,420 pounds each, 1,900 pounds less than if made of steel. Nearly a ton more coal can be hauled each trip. Each truck travels 50 to 60 miles a day.

"A fuel dealer in Providence, Rhode Island, has a motor truck hauling coal and coke. Its all-aluminum body is 15 feet long, 7½ feet wide and 4 feet 4 inches high inside, weighing 2,650 pounds and saving 1,600 pounds. In Milwaukee, Wisconsin, a fuel dealer has an aluminum-body truck in which the dead weight saving is 1,460 pounds. This truck makes approximately seven trips a day, totalling approximately 45 miles. In 300 working days per year the increased pay load is equivalent to 30 days' haulage in the former truck. Incidentally, the delivery spouts are also aluminum.

"A large-capacity wheelbarrow, which is so light (37 pounds) that a girl can pick it up easily, is a

back-saver for men wheeling sand, concrete and other heavy materials. Such barrows, all aluminum but their axles, are on the market. Their resistance to corrosion is also an asset.

"Aluminum dump cars range, therefore, from 3 cubic foot wheelbarrows to 70-ton railroad cars. And there are tank cars too."

In a recent published newspaper article, General W. W. Atterbury (President of the Pennsylvania Railroad) states "I had been impressed during the war by the possibilities of lighter, higher-payload cars by an examination of the material in a wrecked Zeppelin in France, and have since experimented with aluminum alloys. What may be accomplished in this direction and in the use of new steel alloys is a matter of continuing study."

Railroads are making rapid strides in using all available economies in operating detail and in the near future all aluminum body railroad cars may become common. Transportation in the coal mines is undergoing rapid changes also and an all aluminum body coal mine car will soon be a practicable unit of mine equipment.

Versatile Amos 'n Andy

Amos 'n Andy have a big radio audience. Each one in his turn plays many parts. It is done so nicely that their audiences do not realize that two men are putting on the whole show. Most listeners in visualizing the different characters portrayed form a mental picture of the different persons portraying the characters. However, it seems that Amos and Andy do it all. The Pathfinder tells that in the recent "murder trial"—the one where Amos was just about ready to mount the gallows, when the alarm clock rang and woke him up—Amos portrayed ten characters.

The Kingfish, Lightning, Ruby Taylor's Papa, Brother Crawford, Jack Dixon, Assistant District Attorney, Court Clerk, Coroner, Court Bailiff, Ballistic Expert.

Andy was not far behind with other characters: Judge, Amos' lawyer, their landlord, the whale, the swordfish, two bailiffs.

We've seen a lot worse shows acted with a person for every character, than the one given by these two great entertainers.

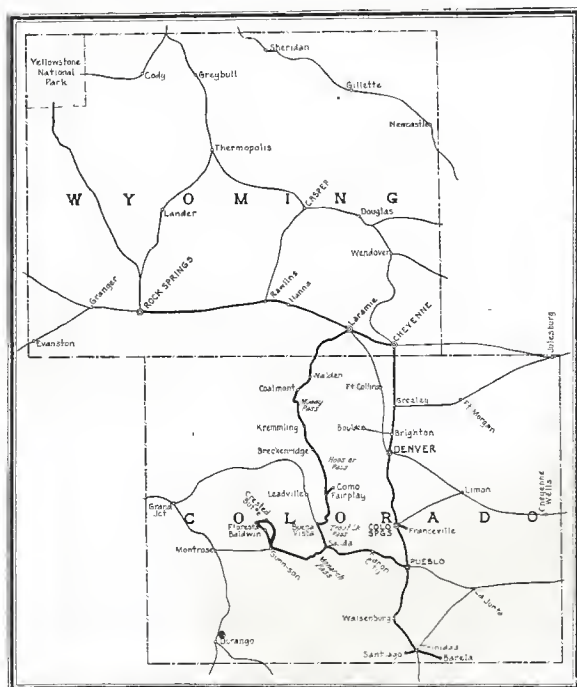
MOTHT DITHAGREEABLE!

The editor of a small town newspaper explains the loss of the letter "s" from his composing room as follows:

Latht thome thneaking thcoundrel thtole into our compothng room and pilfered the cabineth of all the ththctht! Therefore we would like to take advantage of thith opportunity to apologize to our readerth for the general inthipid appearance of your paper. We would altho like to thtate that if at any time in the yearth to come we thould thee thith dirty thnake—in the grathth about the pre-mitheth, it will be our complete and thorough thaththfaction to thooth him full of holeth. Thank you!

Log of the Good Ship "Dodge Six"

IN THE old days when The Union Pacific Coal Company's frontier lines were farther extended than they are today, it acquired, developed and operated numerous coal properties in Colorado, all of which are now substantially abandoned, the company, however, retaining title to certain coal lands, which it was deemed desirable to inspect from the standpoint of trespass invasion, etc., so on the morning of Saturday, September 10, the "Dodge Six" headed east from Rock Springs with Captain Jack Smith at the helm. The senior wrangler, who rode with the Captain, noted with profound admiration Jack's ability to guide the Dodge around any old curve with his left arm only. This measure of genius can only be acquired by long practice and it is evident that Jack has proven an apt student.



Map showing route followed.

The 150 miles, Rock Springs to Hanna, was made in good time without incident, and shortly after arriving at Hanna, accompanied by Superintendent O. G. Sharrer, a visit was made to the Johnson and Abbott wagon mines located some thirteen miles southeast of Hanna. Sunday morning, every one went to church, and Sunday afternoon, we drifted over to Laramie in order that an early start might be made Monday morning. There are two very gracious Bishops located in Wyoming, and it was our privilege to call on the Bishop, whose see is located at Laramie, who graciously showed us the interior of his cathedral, the Cathedral Home for Boys, etc.

At 5:45 A. M., Monday, September 12, we were

under way for Coalmont, the location of the North Park Coal Company's large stripping operation, where we were received very graciously by Mr. R. W. Moore, manager. After a couple hours delay, we headed for Como, lunching at Breckenridge, one of the old semi-ghost placer gold mining towns of Colorado, whose population and activities are now limited to the entertainment of summer tourists. Before coming into Breckenridge, we paralleled six or eight miles of old-time placer mining work, where the old river channel had been turned over to a depth of twenty feet, for a width of one-quarter mile, and extending down the creek about eight miles. Thereafter, we crossed Hoosier Pass, and arrived at Como, where the company at one time operated a number of coal mines, closing out its operations at this point forty years ago.

Leaving Como, we passed through Fairplay, where the ashes of one of the early prospectors are interred alongside the remains of his faithful burro. The two graves occupying a conspicuous location on Main Street. In an hour, we were crossing Trout Creek Pass, and drifting into Buena Vista, we arrived at Salida, where Monday night was spent.

With another early start, Captain Smith headed the "Dodge Six" westward and at 6:45 A. M., we came to a halt on the summit of Monarch Pass, said to be the highest highway mountain crossing in the United States, elevation 11,386 feet. The view from Monarch Pass, with the sun breaking through the eastern hills, was gloriously magnificent, and in a few minutes, we were making the torturous descent with the Dodge in "second", hairpin curves as numerous as hair on a dog's back. Passing through the town of Gunnison, we headed for Crested Butte, and with a brief call on the C. F. & I.



Coming down old trail between Crested Butte and Baldwin.

Company's Agent, and a very gracious druggist, Mr. A. J. Matkovich, a one-time Pennsylvania Railroad telegrapher and later Traveling Passenger Agent, we started for Floresta, the location of the company's anthracite properties, which ceased operation in 1919.

With the thought that time might be saved, and acting on the advice of a cattleman who just came up the Baldwin-Floresta trail with a wagon and a drove of cattle, we decided to test the Dodge's hill descending powers, by going down the side of the mountain over an old and almost abandoned wagon trail. Fortunately, no ascending grade was encountered, the distance for between three and four miles one of continuous descent over a rough, winding wagon trail, so steep as to necessitate keeping the car in low, with both hand and foot brakes simultaneously applied at times, the junior wrangler meantime bouncing around with the baggage in the rear seat with no responsibility other than that of enjoying the mountain scenery.

After four miles of torturous descending road-

way, we entered the valley with a fairly good trail, eventually arriving at the site of old Baldwin, where little is left of that once thriving camp except a few small dump piles and the foundations of numerous log houses. Leaving Baldwin, we decided to drive through to Pueblo, the highway between Salida and Pueblo excellently maintained.

It was at Pueblo where we made our first strategic mistake, our skipper recommending the Whitman Hotel. Captain Jack was so sure of himself, and as none of us had experienced a crowded hotel for two or three years, we unloaded our baggage and moved in on the very charming young lady clerk, asking for rooms with baths, etc. The young lady looked the party over, advising us in her sweetest manner that the house was full, and no measure of assurance expressed by the senior and junior wranglers that Captain Smith was all right, even though his face was dirty, would bring us rooms, which we found at another and less pretentious hotel, the crowd occasioned by the State Fair then being held at Pueblo. Doubtless the



(1) Part of Main Street, Breckenridge, Colorado.

(3) Where tippie, hoist and mine buildings formerly stood at Baldwin, Colorado.

(2) Looking north toward location of old Como Mines. Present wagon mine in background.

(4) Location of old Baldwin townsite. Mine refuse dump center background.



Summit of Monarch Pass between Salida and Gunnison. Elevation 11,368 feet.

young lady was right, and the hotel was filled up, but thereafter we held the skipper and the baggage in the background until rooms were duly secured.

Early Wednesday morning, September 14, we left Pueblo for Trinidad, looking over the Santiago and San Francisco properties of the company, where some forty-eight million tons of commercial, workable coal are being held in reserve. Leaving Trinidad, we passed through Pueblo and Colorado Springs, heading east from the Springs to visit the old abandoned Franceville mining property, which was inspected, after which, by using the proper technique, we were given shelter at the Antlers, where we were joined by Mr. Arthur S. White, Vice President and General Manager of the National Fuel Company of Denver.

With the trip to Franceville, our inspection was concluded, and on the morning of Thursday, the 15th, we drove into Denver, stopping on the way to examine the top work of the Pikes Peak Fuel Company mine, located five miles north of Colorado Springs, where we were fortunate to meet Mr. W. D. Wade, General Manager, who very kindly showed us over the property, thereafter arriving at Denver, the senior wrangler returning to Omaha by train, the junior wrangler and Captain Jack heading for Rock Springs. The total distance traveled was 1,708 miles, consuming 136 gallons of gas, equivalent to a performance of 12½ miles per gallon.

The weather from the time of leaving Rock Springs, and continuing throughout the trip, was glorious, a still, mellow September period. While seated on the veranda of the old Antlers Hotel at Colorado Springs, a full harvest moon broke out of the eastern horizon, occupying a position almost central with the axis of the avenue leading eastward from the hotel. Under suitable conditions, our skipper might have become more or less romantic, his one expression, however, confined to these few words—"Oh, what a moon! Why must it go to waste?"

Knowledge

The answers shown below were adduced at a recent school examination. No, not in the Rock Springs district.

* * *

In India a man out of a cask cannot marry a woman in another cask.

* * *

Malays are brown generally, and inhabit Malaria.

* * *

The wife of a duke is a ducky.

* * *

Socrates died from an overdose of wedlock.

* * *

One of the by-products of cattle raising is calves.

* * *

A hamlet is a little pig.

* * *

Rhubarb is a kind of celery gone bloodshot.

* * *

A grass widow is the wife of a vegetarian.

* * *

An invoice is another name for conscience.

* * *

A Mayor is a he horse.

* * *

The prairies are vast plain covered with treeless forests.

* * *

The greatest miracle in the Bible is when Joshua told his son to stand still and he obeyed him.

* * *

A mountain range is a cooking stove used at high altitudes.

* * *

Herrings go about the sea in shawls.

* * *

An axiom is a thing that is so visible that it is not necessary to see it.

* * *

Abraham Lincoln was born in a little log cabin which he helped his father to build.

* * *

Cyanide is so poisonous that one drop of it on a dog's tongue will kill the strongest man.

THE TRUTH

An old Negro went to the office of the Commissioner of Registration in a Missouri town and applied for registration papers.

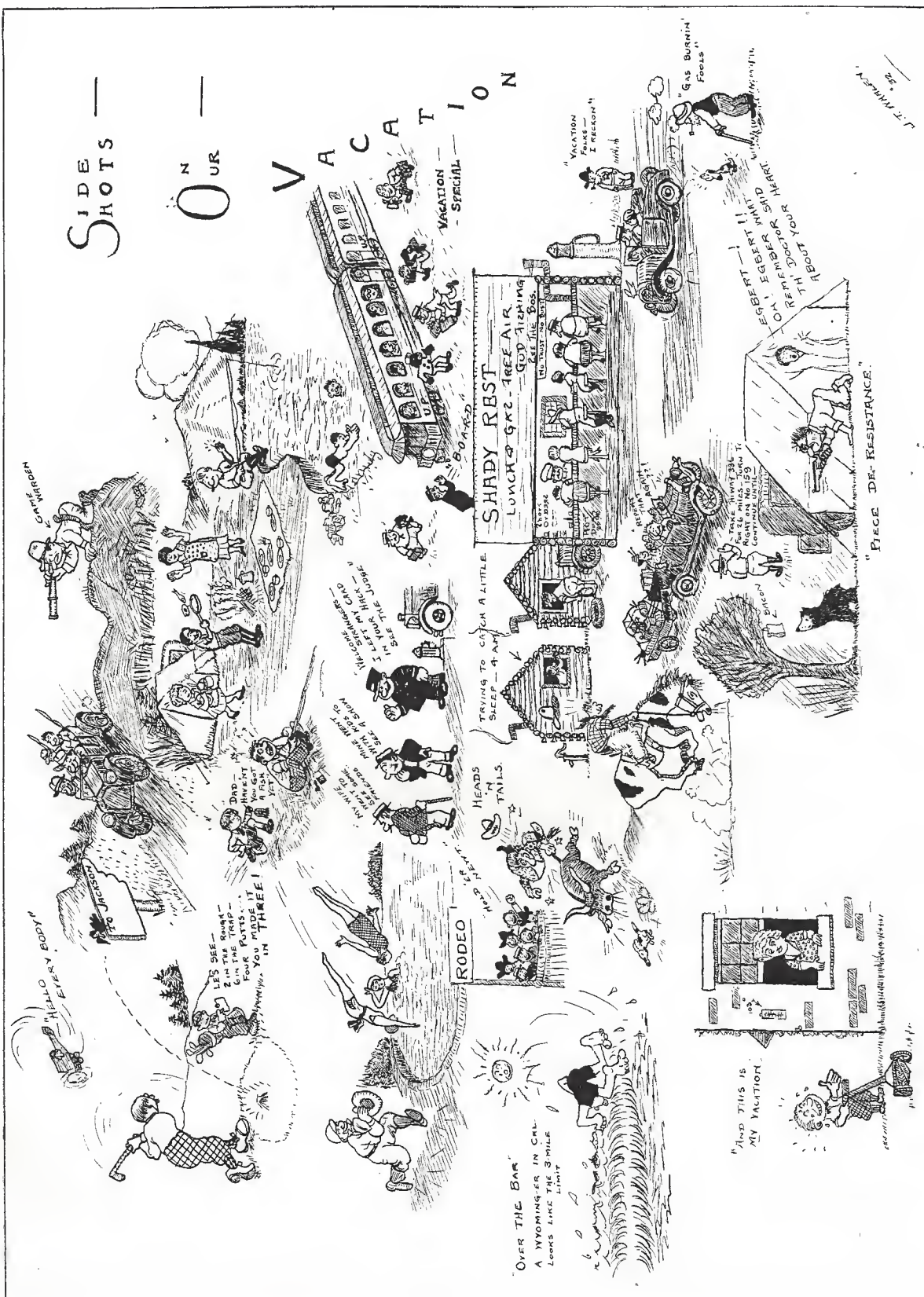
"What is your name?" asked the official.

"George Washington," was the reply.

"Well, George, are you the man who cut down the cherry tree?"

"No suh, I ain't de man. I ain't done no work for nigh onto a year."

"Dear Teacher," wrote an indignant mother, "you must not whack my Tommy. He is a delicate child and isn't used to it. We never hit him at home except in self-defense."



—≡≡≡ The Old Timers ≡≡≡—

Mike and John Begovich

Mike Begovich, Sr., Miner in No. 4 at Rock Springs, came to this point in 1908, beginning work in old No. 10 Mine. He has successively been employed in old Mines 8 and 10. Was born at Kazna, Dalmatia, on March 15, 1880. Is married and has five interesting children, the oldest son, Mike, Jr., working alongside his father, the remaining children living at home. He is a cousin of John



Mike Begovich, Sr.

Begovich also pictured on this page. He is a member of the Old Timers Association.

John Begovich, Rope Rider in Mine No. 8, Rock Springs, was born at Kazna, Dalmatia, on October 2, 1884. He came to this city in July, 1904, and secured employment in old Mine No. 10. Also worked in old Mine No. 8. He has never married and is a cousin of Mike



John Begovich

Begovich, Sr. He has 28 years service and belongs to the Old Timers' Association.

"A Little Work"

By GEORGE DU MAURIER.

A little work, a little play
To keep us going—and so, good-day!
A little warmth, a little light
Of love's bestowing—and so, good-night!
A little fun, to match the sorrow
Of each day's growing—and so, good morrow!
A little trust that when we die
We reap our sowing! And so—good-bye!

Obituary

There died on August 15th (inside Mine No. 4, Rock Springs) from heart failure, Chuzo Tanaka. He had been in the service of the Company since 1907, having begun work in old No. 10 Mine here, and accordingly he belonged to the Old Timers' Association. Mr. Tanaka was born on May 10, 1868, at Noda, Japan, and, during his long connection with the Company, had paid two brief visits to his native land to see his family, a wife and four grown children in Japan surviving him. Funeral under the direction of the Japanese Association of this city was on August 17, body shipped to Denver for cremation, and the ashes forwarded to his family abroad.



Chuzo Tanaka

America Likes Bagpipes

Though in Scotland one may travel wide and far, before hearing the traditional "skirl" of the bagpipes, the demand for the pipes among Scots abroad becomes keener each year. In America especially is this the case where Scots and the descendants of Scots form a considerable proportion of the population.

I found a bagpipe factory which I visited in Scotland working at full pressure almost entirely on export work.

There are families the world over with Scottish names who have never seen Scotland for generations.

"A McKenzie wrote in Spanish from Quito, the capital of Ecuador, asking for a set, saying that his family had been settled there for three hundred years, but the sound of the pipes still set his heart throbbing."

Four Scots on a rubber plantation in Malay described how, under the inspiration of whisky and haggis, they had danced a reel on St. Andrew's night which had so impressed the natives that they had asked whether they could form a class and learn to play the bagpipes themselves!—*Pearson's Magazine*.

— Of Interest To Women —

Parisian Tips on Fall Clothes for the Smartly Clad

Tailored trim is the style ticket for early fall and winter togs.

Trig, tight-fitting tailleurs come for morning wear in lovely new woollens of extremely delicate quality, as well as the rough, knobby ones of more sportive type. Piping trims a new model recently seen in the Bois, an interesting revival for the otherwise severe tailor-made which is ever becoming and beautiful. This suit came in the very popular navy blue, the piping being applied to the capelike collar, the pockets and the cuffs of the smart jacket.

Tailored skirts reach the anklebone on some of the early ensembles, others stop six inches above the ground. Jackets are generally short.

Smart and neat is the tailored ensemble of smooth black wool, with waist-length jacket and skirt that is flared by a wide panel both front and back.

For dressy afternoon wear this skirt is worn with a soft pink chiffon blouse.

Terribly tailored are the new princess sport dresses frequently showing the higher waistline, with their tops or shoulders and yoke sections with sleeves of contrasting tone. A striking model comes in canary-yellow and black and there is a little tailored jacket to wear with it. These are expected to be the favorites for southern wear this winter, made in the new colored angora wools which are so soft and pliable.

Narrow separate cravats are coming from one of the designers who finds them more becoming trim tailored effects.

Tailored chiffon and crepe dresses for more formal wear have almost straight lines and few feminine frills aside from little shoulder-capes or scarves.

Boudoir and lingerie fashions this season are cut on the lines of the new silhouette, slender limbed, high-waisted, even broad-shouldered. Hostess gowns and nightgowns are generally formal and empire in style, like the new evening gowns.

Hostess gowns are elegant as to fabric and trimming. Fur, feathers, lace and fringe are used for trimming. Sleeves are as interesting as they are in the autumn frocks. Dolman sleeves are favored. Others are bloused at the elbow, fitting the lower arm like a glove, or falling bell-shaped to the wrist. Neck lines are generally high and trains feature some of the more formal models.

Pajamas are just as popular as they ever were,

but they are worn in less formal locales than formerly. Smart women never wear them in public, or even in mixed gatherings at home. They are popular though for kitchen duty and lounging.

The new gowns are dainty and feminine. Lace and ribbons trim many of them. They feature the raised bodice; off-the-shoulder capelet, and puffed sleeves, and longer skirts flaring gracefully at the ankles. Handmade lingerie is less expensive than in other years and is generally favored.

New French lingerie is intricately cut and molded to the figure. Mousseline, soft crepe and satin are fabrics favored.

The powder tints are most popular lingerie shades with ivory, peach, flesh, magnolia, nacre, a bluish-white and tea rose outstanding.

Some of the new veils which are worn thrown back off the face with fullness draped to the back of the head.

Pins are saving the modern benedict a lot of trouble this season. Many of the new clothes are pinned together and the little woman no longer has to beg assistance in buttoning up her dresses.

Pins are so prominent among advance winter fashions that many of the new wool coats and dresses made in wrap-around-waist, are fastened only by big coarse pins of metal.

Several new jackets and jumpers for school girls are made of soleil felt.

One sleeveless double-breasted model is of African brown felt, smartly tailored. Another looks like a little Robin Hood jacket and is made of pine needle green. Felt berets and huge bags roomy enough for carrying school books complete the outfit.

While dresses and coats are getting longer for daytime wear, evening clothes are a bit shorter and the new long evening coats are at least four or five inches shorter than the gowns they are worn with. The latter help to contribute to the effect of the new long, slender silhouette.

Waist lines were high, skirts medium short for daytime and to the floor for evening wear.

Square Treatment

Do not laugh at your child's faults when company is around and then punish him for the same trick when you are alone. It does not take the little fellow long to see the unfairness of such treatment and he will soon lose confidence in you.

Eating Habits

The body, like a machine, does its work best with good fuel. Healthy humans need a balanced diet; a little protein in the form of meat, fish, fowl, or eggs; some carbohydrate like bread, potato, rice, or similar substances; a small amount of fat, such as butter, cream, and olive oil, and generous amounts of fruits and green vegetables. Most of us also crave rich desserts and sweets and over-indulge in these at the cost of our teeth, our digestions, and our figures.

Good water and plenty of it is important for health. It helps the body rid itself of waste through the kidneys, the digestive tract, and the skin. It is a cleanser of the entire system, but is best taken between meals.

Regular meals encourage regular body functioning. Hurried meals and eating between meals promote indigestion. Relax before and rest a while after eating. The teeth and the salivary glands were given to us to use. Less food, properly masticated, would remedy many cases of chronic indigestion.

Lunch counters, with their rows on rows of heavily frosted pink, white, and brown pastries, are snares for the unwary. A bowl of milk, a dry cereal, and some fruit make a satisfactory light lunch, available and safe in most eating places.

Coffee and tea are real stimulants and should not be used to excess. Few, however, are harmed by a morning cup of coffee.

The piano mover needs more food than the pen pusher, but most people overeat and would feel better with less food.

Eat sensibly—eat regularly—eat leisurely.

Nothing So Refreshing as Sleep

By DR. C. O. SAPPINGTON

National Safety Council, Chicago.

It is impossible to "catch up" on sleep in a single night. Even a ten-hour period of sleep has failed to make up for the effects of four hours' loss of sleep on the night before; eight hours on the third night will still leave the person not entirely recovered. These are the conclusions of experiments made on the effects of loss of sleep, by Dr. G. LaVerne Freeman, of Yale University.

Working efficiency may be kept up to normal on the day after a serious sleep loss, but probably the individual will work under a high degree of muscular tension. If late hours are persistently kept this muscular compensation, which partly enables one to keep the output to normal, will gradually lose its good effect.

Probably one of the most interesting principles brought out by these experiments was the change of reaction to human environment; persons who are ordinarily congenial find it increasingly difficult to be sociable and, in some instances, it was discovered that it was necessary to forego social

events to preserve one's reputation of having an agreeable personality.

Our conclusion is that regular and sufficient sleep is necessary for all individuals who would preserve smooth human relationships and avoid sociological friction. This applies to all individuals and to all situations.

Dainty Date Dishes

Dates are generally thought of as a confection. They are one of the best confections that we have, but they are more than that. They are a food and combine pleasingly with a great number of other ingredients. Dates are one of the most healthful foods we have. They absorb the rays of the sun and really represent imprisoned sunlight. They contain the constructive properties on which our bodies depend. Dates have a large content of digestible fruit-sugar, which the body absorbs as energy. They also contain protein for tissue building and have a valuable mineral content. They are an unusually well-balanced food, pleasant to taste and within the means of all.

If children tire of their cooked cereals, try slicing four dates to each portion and cooking them in the cereal for several minutes. Dates are delicious when sliced over cold cereals also. Dates and rice make a fine luncheon dish for the family.

An entirely new flavor can be added to your regular muffin batter by stirring in cut-up dates just before putting the batter into the pans. Two dates to a muffin is about the right amount. If dates are added to muffins in which bran has been used, the flavor is especially fine.

Served as a dessert, dates are very tasty and healthful. Wash and dry them, remove the seeds and cut the dates into halves or slice crosswise. Serve with thick cream or whipped cream.

For a distinctive salad add three-fourths of a cup of shredded dates to three sliced bananas and three sliced oranges. Cover with French dressing and serve on lettuce.

Tidbits

A few chopped onions are good in hashed brown potatoes.

Mix chopped prunes with baby's cereal for a healthful change.

Poached eggs are mighty good served on nests of boiled rice instead of toast.

If the cheese is too soft to grate, run it through the big knife of the meat grinder.

Avoid making a very rich pie crust for meat pies. It is almost certain to spell indigestion even though enjoyed.

Batter cakes may look nicer when baked on a soapstone griddle but they will not be as light as those cooked on a greased iron griddle.

Early morning is the best time to cut garden flowers.

Sponged with a cold solution of strong tea, the

shabby old umbrella will look as though it had a new lease on life.

Soak a piece of cotton in kerosene and place it in the bottom of the clock. The fumes will rise and clean it nicely for you.

Do not leave a spoon in the pan with anything which you want to boil quickly as the spoon will conduct the heat away from the liquid.

A splendid polish will be obtained on clean linoleum if linseed oil is rubbed into it. It will not make the floor slippery, as do many oilcloth polishes.

Broiled shad is delicious with mushroom sauce.

Baked potatoes are more digestible than any other method of serving this vegetable.

Boiled onions are good covered with a white sauce, buttered crumbs and then baked until brown.

A few sour pickles chopped and added to sardine paste for sandwiches makes a pleasing filling.

Griddle cakes may be served as a dessert by spreading with jelly or preserves, rolling as for jelly roll and securing with a toothpick.

To Replace Vinegar—Lemon juice may be substituted for vinegar in any recipe that calls for the latter, except pickling.

To Sour Milk—Lemon juice added to sweet milk will sour it suitably for cooking.

For Stewing Dried Fruits—Add a small amount of lemon juice and grated lemon rind in stewing such dried fruits as prunes, figs, peaches and so on.

In Cooking Meats—Tough meats will be made tender by adding a teaspoon of lemon juice to water in which they are boiled.

World-wide Notes On Women

Women of Hokkaido, Japan, have mustaches tattooed on their lips.

Marriage is easy in Poland. The new ceremony consists merely of the swearing of an "oath" before a local Communist worker, who then declares the marriage valid.

Mrs. Edith Zimmer of Cleveland, Ohio, is claimant for the title of the world's "youngest grandmother." She is 30 years of age and asserts she was a grandmother at 29.

Women in Bermuda are on the warpath for equal suffrage. They are preparing a monster petition which, it is hoped, will be so representative that it will gain attention in the legislature.

Chen Hwa Hwang, aged 34, a daughter of Gen. Sin Hwang, who is studying at Teachers college, Columbia university, is planning to return to China and aid her government in resisting the Japanese aggression.

According to Miss M. A. Kenyon of Southland, England, women do not have enough personal pronouns, and she suggests that in future there should be she, shim and shis, just to line up with he, him and his.

The little village of Corwin, O., is governed by women. Lawlessness is rare, and the inhabitants are proud of their clean government. Among the officials are mayor, treasurer, village clerk, and councilwomen.

Because 85 per cent of the petty liquor smuggling from Canada is said to be done by women, women customs inspectors have been put on duty at the ferry docks and tunnels in Detroit, Mich.

Mrs. Joseph M. Franks of Everett, Mass., is believed to be the only feminine journeyman cabinet-maker in the world.

Upward of 1,600,000 women in the soviet union of Russia left their places in the home to become wage earners in 1931.

Dr. Mildred M. Hicks-Brunn is working a molecular weight apparatus at the Bureau of Standards, Washington, D. C., where she is engaged in petroleum research.

Mrs. B. L. Small and Miss Ella Harbinson, ordained elders of Warrenpoint Presbyterian church in Belfast, are the first women to win such positions in Ireland.

Countess Margit Bethlen, descendant of a Protestant martyr and wife of the former premier of Hungary, was recently ordained as a Presbyterian elder in the First Magyar Presbyterian church in New York City.

That Depreciation Thing

She was buying her first car. The salesman was trying to make everything perfectly clear to her non-mechanical mind.

"Yes, I think I understand what the carburetor is for, and the differential and the transmission and all those other things you've explained to me," she said. "Now please show me the depreciation. All my friends who have cars tell me that the depreciation on the average car is terrible."

The salesman gasped for air a couple of times, but recovered his poise in a masterly effort: "Madam, there is no depreciation on our car. Realizing the vast amount of worry and expense entailed by this troublesome feature, by an ingenious application of the latest principles of automotive science our engineers have eliminated it entirely. Other car builders will eventually follow suit, no doubt, just as soon as they can make the necessary changes in design and machinery. In the meantime, as always, we lead, others follow!"

She bought the car.

Professor: "Correct this sentence: 'Before any damage could be done, the fire was put out by the volunteer fire department.'"

Boy: "The fire was put out before any damage could be done by the volunteer fire department."

Our Young Women

Hallowe'en

(Webster's Dictionary) "The evening preceding All-hallow, or All Saints Day; the evening of October 31. In many countries Hallowe'en is traditionally devoted to merry-making, with playful ceremonies and charms to discover future husbands or wives."

THIS is one of those occasions when it is a very simple matter to fill the air with keen enjoyment, and "make the welkin ring". So many things and stunts along the line of witchcraft can be "pulled off" at so little an outlay that every household can enter into the spirit and make it a gala event for the grown-ups and the children as well.

Here are a few choice, easily arranged, suggestions that will assist you in making the affair a success:

Black cats, paper owls, heads of witches, etc., may be hung around the walls, and be sure your lights are dimmed giving the room a weird, spooky appearance.

Small pumpkins, squash, oranges or apples that are made to look like jack-o'-lantern faces, and cakes and cookies with black cats jumping out of them will create the atmosphere. Nothing can be more effective as a climax to a hilarious evening than a table set with flying witches, black cats, owls, demons and terrible goblins.

BLACK-CAT COOKIES. Ice any small cakes or cookies with white icing and decorate with the small licorice cats, which are to be had in most confectioners' shops.

DOUGHNUTS ON A STRING. Suspend a stout string on which doughnuts have been strung across a corner of the room, and insist that each guest must eat one of the cakes without the aid of his hands, directly from the string.

JACK-O'-LANTERN SALAD. Hollow red apples or oranges, cut jack-o'-lantern faces in the surface, and place bits of pimiento, green pepper, or cherry in the openings. Fill the lanterns with a nice fruit salad and top with a whipped-cream or mayonnaise dressing made stiff enough to stand like a cap on the fruits.

This Old Superstition More Fun Than Help

Here is an old superstition said to indicate what the girl will be by the month she is born in:

If a girl is born in January, she will be a pru-

dent housewife, given to melancholy, but good-tempered.

If in February, a humane and affectionate wife and tender mother.

If in March, a frivolous chatterbox, somewhat given to quarreling.

If in April, inconstant, not intelligent, but likely to be good-looking.

If in May, handsome and likely to be happy.

If in June, impetuous, will marry early, and be frivolous.

If in July, passably handsome, but with a sulky temper.

If in August, amiable and practical, and likely to marry rich.

If in September discreet, affable and much liked.

If in October, pretty and coquettish, and likely to be unhappy.

If in November, liberal, kind, of a mild disposition.

If in December, well proportioned, fond of novelty and extravagant.

Girl Caddies

Girl caddies at the Wannsee Golf Club, near Berlin, Germany, are found to make better caddies than boys. The girls are smartly dressed, polite, enthusiastic, attentive and grateful for their tips and fees.

Yesterday, Today and Tomorrow

For yesterday is already a dream.

And tomorrow is only a vision;

But, today, well-lived, makes every

Yesterday a dream of happiness, and

Every tomorrow a vision of hope.

Look well, therefore, to this Day.

Such is the salutation of the Dawn.

—Sanskrit.

Girl Scout Notes

While contacting some former officials of local Girl Scout troops for news items, one told me of a nice little custom started by one thousand girls in New Jersey. During October, they each purchased a dozen bulbs (tulips, narcissus—daffodil types, as near as she could recall) set them in pots and when they were in bloom just a few days prior to the holidays delivered them to the sick, shut-ins, and friends for Christmas gifts, neatly wrapped in Denison tissue or crepe paper of appropriate color, with your card accompanying.

Do you not believe this would make a very beautiful and acceptable remembrance at yuletide? The cost of the bulbs is a trifling item and you could use an empty tomato or fruit can in place of a flower-pot, first tastily concealing the can with crepe paper, etc., as above told. Clay pots are quite reasonably priced and your florist would be pleased to get rid of them.

What say? Let's try it here. Get them in the earth right away.

How to Fail

Blame your errors on others.

Be afraid.

Complain.

Exaggerate.

Be sarcastic.

Be a glutton.

Be conceited.

Scorn advice.

Procrastinate.

Be indifferent.

Praise no one.

Be a pessimist.

Repeat rumors.

Ridicule others.

Break promises.

Refuse to learn.

Travel the ruts.

Keep late hours.

Neglect your health.

Evade responsibility.

Be a chronic grouch.

Work without a plan.

Always have an excuse.

Do as little as possible.

Be a chronic borrower.

Think that you will fail.

Give your temper full play.

Spend more than you make.

Blame your errors on others.

WHY NOT BE A SUCCESS?

—“Current News,” Philadelphia Electric Co.

PERPLEXING PROBLEM

“Can I help you in any way?” asked the courteous motorist on an Irish road.

“It's this gasoline indicator,” replied the damsel, standing beside her roadster. “It's at the half-way mark, but for the life of me I can't remember, ‘half full or half empty.’”

TYPEWRITING

We typists have heard of the Hunt & Peck and the Biblical systems (Seek and ye shall find), but the following item explains a new method:

“Can you type?”

“Well, I use the Columbus System.”

“What's that?”

“I discover a key then land on it.”

Boy Scout Activities

Scouts Who Have Made Good

Paul A. Siple, the Scout who went with the Byrd Antarctic Expedition of 1928-1930, recently graduated from the Allegheny College and has been invited to accompany Rear Admiral Byrd on another trip to the South Polar regions. At the commencement exercises Paul Siple was awarded the Heckel Prize for his thesis, “The Biological Report of the Byrd Expedition.” Siple is an Assistant Scoutmaster and has carried on his Scout work in spite of his heavy program at college. He is the author of the book, “A Boy Scout With Byrd,” and has written another book on the subject of exploring at home, which will be published in the fall.

Another well known Scout who has just received his Bachelor degree is Dick Douglas, one of the three Scouts who was chosen to accompany the Martin Johnson Safari to Africa in 1928. He is the co-author of “Three Boy Scouts in Africa”, and has attained considerable success as a public speaker. He received his degree at the College of Arts and Sciences of Georgetown University.

Highest honors at the recent graduation exercises at the U. S. Naval Academy at Annapolis, Md., went to Star Scout Richard S. Mandelkorn, of Peoria, Ill., who won five awards. He ranked “No. 1” in a class of 420 men, and won the class of 1924 gold watch for standing in engineering and aeronautics, Sons of the Revolution cup for proficiency in practical ordinance and gunnery, the Military Order of Foreign Wars wrist watch for standing in mathematics, the Thompson navigating sextant for proficiency in practical and theoretical navigation and the Gardner L. Caskey memorial gold watch for winning the highest standing in his class. He was a member of Troop 47 of Peoria from 1922 until 1926 when he left for Annapolis.

Another Scout to win distinction was Life Scout Paul Cauffiel Louther of Johnstown, Pa. He is a member of Troop 9 of that Council and a Patrol Leader as well as a special instructor. He has just been awarded a \$6,000 scholarship to Culver Military Academy as the outstanding boy among 404 other Pennsylvania youths. The requirements cover exacting scientific, mental and physical tests.

Getting Out the Vote

A campaign is now being conducted by the United States Junior Chamber of Commerce, on a non-partisan basis, to get out fifty million votes during the forthcoming presidential election as a part of the Washington Bicentennial. The number of votes mentioned, it is stated, is only 68 per cent of the qualified voters of the nation, whereas, it will be recalled, that in the late German election over thir-

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ty-seven million votes were cast, which represented about 92 per cent of those qualified to enjoy the franchise. The Boy Scouts, American Legion, Daughters of the American Revolution, and other organizations are to help in the movement.

Boy Scout Notes

THE regular Monthly Court of Honor of the Boy Scouts of Sweetwater District, will be held at Superior under the auspices of Troop No. 165. Scoutmaster Haueter will prepare and conduct the program. A large number of badges are to be awarded, as this is the first Court of Honor since the Scout Camp.

EPISCOPAL CHURCH TO SPONSOR SCOUT TROOP

The Episcopal Church of Rock Spings has agreed to sponsor a Boy Scout Troop. The name of a Scoutmaster will be announced in the very near future. There is already a fine group of boys meeting regularly, preparing to become tenderfoot Scouts.

No. 4 SCOUTS ACTIVE

The Scout troop, sponsored by the Community Council at No. 4, Rock Springs, is doing a fine work. The boys are preparing a building near the No. 4 Community Hall for a meeting place for themselves. This will be their own and will be decorated up like a real Scout Den. Scoutmaster Chester Roberts and the troop Committee are to be congratulated on the fine progress of this troop.

TROOP No. 169 REORGANIZES

Troop No. 169, sponsored by the Methodist Church, has been reorganized with Mr. L. D. Minnick as Scoutmaster. The Troop itself has also been reorganized into patrols and troop officers. Mr. Minnick has such a fine organization, every boy knows just what his responsibility is and the boys themselves furnish the leadership and troop government with Mr. Minnick acting as advisor and being on the job to keep the boys on the right track by making the right suggestion at the right time.

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A Mimetic "Three Blind Mice"

From the camp fire program of a Scout Jam-boree held at Colombo, Ceylon, we get this excellent mimetic arrangement of the popular round, "Three Blind Mice." It is sung standing.

Three Blind Mice, three blind mice;
See how they run, see how they run!
They all ran after the farmer's wife,
She cut off their tails with a carving knife;
Did you ever see such a thing in your life
As three blind mice.

DIRECTIONS:

1st time, sing through in full.
2nd time, omit "three" and hold up three fingers.
3rd time, omit "blind" and close the eyes, thrusting the head forward.
4th time, omit "see," shade eyes with the hand and all look in one direction.
5th time, omit word "ran", and "run" standing still.
6th time, omit "cut off their tails," and make a sweeping motion behind with the right hand, as though cutting off a tail.

The sixth verse will sound like this.

— — — — — mice. — — — — — mice,
— — — — — how they — — — — —, — — — — — how they — — — — —,
They all — — — — — after the farmer's wife,
She — — — — — with a carving knife,
Did you ever — — — — — such a thing in your life
As — — — — — mice.

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Our Little Folks

The Mystic Number Nine

When it comes to magic the number nine is without an equal as these "stunts" prove:

Write down a number that is more than nine. Find the sum of its digits, subtract that number from the original number and the remainder is nine or a multiple of nine. Take the number 57, for example. The sum of its digits is 12. Take 12 from 57 and you have 45, a multiple of nine and four and five are nine.

Take a row of figures, reverse their order and subtract the smaller number from the greater and the remainder will be nine or a multiple of nine. Here is an example:

Take the number 4,973 and reverse it. Then subtract 3,794 from it and you have 1,179, which is a multiple of nine. Furthermore, the sum of the digits of 1,179 is 18 and the sum of the digits of 18 is 9.

Christmas Dolls

This may put a crimp in the Christmas expectations of the little girl.

A shortage in dolls is threatened due to a strike of the New York Doll and Toy Workers Union which recently called a strike in the metropolitan district in which territory some twenty million dolls are annually made. The Union officials claim some three thousands workers are out. The strike, it appears, was ordered to affect the market just at the time orders begin coming in for the holiday trade. The supply of toys may also run short due to the same labor trouble.

A Trick With Toothpicks

Here is a fascinating trick which anyone can perform with four toothpicks:

Break four toothpicks exactly in the center to form the letter V. Each toothpick is not to be

broken in two pieces, but only enough to make it hinge. Next, place the toothpicks to form a cross, the broken parts forming the center.

Now challenge anyone to make the toothpicks from a four-pointed star, without touching them.

When everyone has tried and has failed to do this, then you reveal the secret of the trick.

Fill a medicine dropper with water and then let one drop fall on the broken part of each toothpick. If this is done exactly right the toothpicks will slowly open out until their ends touch and form a four-pointed star.

The Utica Jubilee Singers

THE CARD FOR FIRST CHILDREN'S ENTERTAINMENT.

The children of our employes will be delighted to learn that the management has selected for the opening entertainment at the Old Timers Building on October 22, 1932, 2:30 p. m., the well-known traveling organization whose name appears at the head of this reading notice.

The men comprising this group of artists are, according to their advertising literature, the musical messengers of good will from the Utica Normal and Industrial Institute, Utica, Mississippi, a co-educational school for the all-around training of negro youth, which has ministered to its people for over a quarter of a century.

They have made several trips to Europe in the past few years and gave recitals in such well-known musical centers as Milan, Paris, Berlin,

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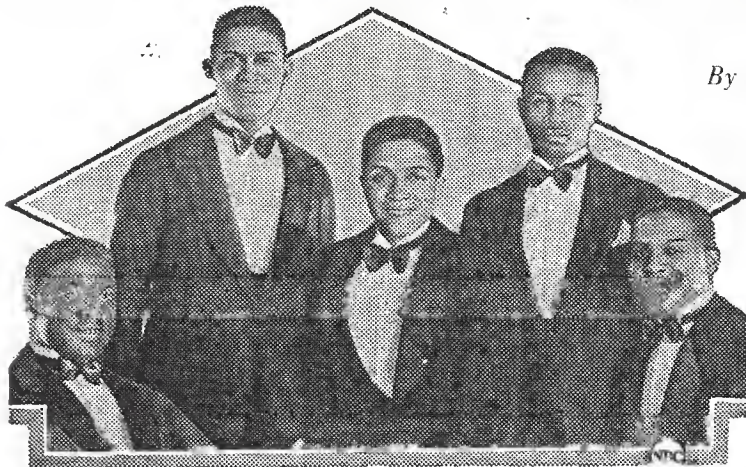
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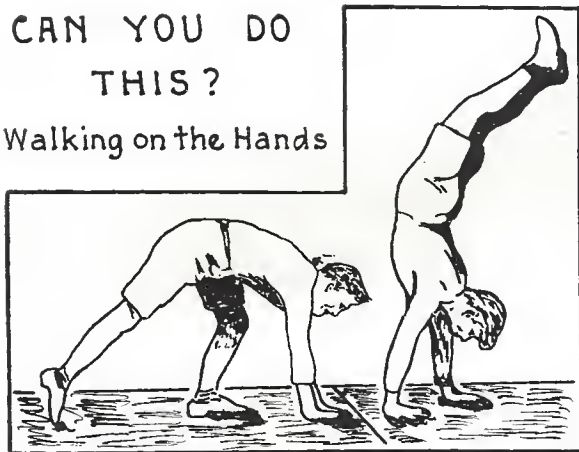


Brussels, Amsterdam, Warsaw, Prague, Stockholm, Oslo, etc., where their artistic programs were received with much acclaim. They are beyond question the foremost exponents of negro spiritual and plantation music before the public today and their efforts in each place at which they have appeared have been warmly and vociferously applauded.

This will surely be a treat for the youngsters.

CAN YOU DO THIS?

Walking on the Hands



Provided you can do the hand stand position with ease and confidence, walking on the hands may be practised.

First swing the legs up until the body is inclined slightly forward before moving the hands.

This means the legs will be bent somewhat more over the head than in the ordinary hand stand position.

To prevent a fall move one hand quickly forward so that the body is turned sideways and the legs can be brought down safely. At first a friend should stand by to give assistance if necessary.

Looking Ahead

By ELEANOR JEWETT in *Chicago Tribune*.

If I had my wish
A pumpkin I'd ride,
And mount it securely
And sit it astride.

A turkey I'd harness,
Its gobble I'd use
For a horn—and to steer,
A touch of my shoes!

Although it is early,
Still I rather think
I'd fly to see Santa Claus,
Quick as a wink.

News About All of Us

Rock Springs

Mr. and Mrs. Jake McDonald returned from a visit with relatives in Milburn.

Mrs. Jennie Stuart is slowly improving from a serious illness.

Joe Frank Wood returned from Fort Douglas, Utah, where he spent three weeks at the Citizens Military Training camp.

Miss Ella McLeod has returned to her training at the Children's Hospital, Denver, Colorado, after having visited here with her parents, Mr. and Mrs. Hugh McLeod.

Mrs. Hubert LaCroix is recovering from an operation for appendicitis recently undergone at the Wyoming General Hospital.

Mr. and Mrs. Leopold Kudar are the proud parents of a son born on Monday, August 22.

Mr. and Mrs. Joseph McTee, Sr., are visiting with relatives in Chicago and Joliet, Illinois.

Mr. and Mrs. Matt Morrison, Dan Hackett, and William Askey have returned from a three weeks motor trip to Maryland and Pennsylvania.

Mr. and Mrs. Dave Abrahams have returned from Denver, Colorado, where they visited with friends for two weeks.

Miss Anna Prieshoff has returned to her home in Crawford, Nebraska, after having visited here with her brother and his wife, Mr. and Mrs. E. A. Prieshoff.

Mr. and Mrs. Alfred R. Anderson have returned from a visit with relatives in Teton, Idaho.

Mr. and Mrs. Evan Jones, Hanna, visited here at the home of George L. Parr in the Belmont Addition.

Henry Walters has returned to work after a three weeks' illness.

Mr. and Mrs. Ed Hoye have returned from Salt Lake City, Utah, where they were called by the death of a relative.

Carl J. Carlson has returned from Pueblo, Colorado, where he attended a district convention of the Swedish Vasa Lodge.

Mrs. Marie Larsen has returned to her home in Utah, after having visited at the home of her daughter, Mrs. George L. Parr.

Superior

Miss Amelia Corozza and Julius Zanella were united in marriage Saturday, August 6, in Denver, Colorado. They will make their home in Superior.

Edna Maki, of Winlock, Washington, is spending some time with her father, Jack Maki.

Mrs. Fred Robinson and daughter, Doris, and Mrs. John Barwick, have just returned from California where they spent a very pleasant vacation.

Mrs. Matt Arkle and daughter, Lorene, are visiting friends and relatives in Tulsa, Oklahoma.

Mazie and Isabelle Gibbs are spending a few weeks in Lander.

Mr. and Mrs. James Sampson of Rock Springs, were week end visitors at the home of R. V. Hotchkiss during the month.

Charles Dean and family have returned from Utah and Idaho, where they spent their vacation.

Mr. and Mrs. Stanley Leisher and brother, Claude, were Sunday guests of Mr. and Mrs. C. A. Murray in Reliance.

Bob Garrison, of Chicago, is visiting his aunt and uncle, Mr. and Mrs. Lou Dierden.

Mr. and Mrs. Carl Anderson are the parents of a baby son born August 19.

Mr. and Mrs. Milton Ayres, of Calpet, were guests, during the month, of Mr. and Mrs. Thomas B. Miller.

Mr. and Mrs. Milton Arbuckle, spent their vacation in Salt Lake City and other points of interest in Utah.

Mrs. Robert Applegate returned recently from the hospital where she underwent a serious operation. She is improving rapidly.

Mrs. James Hudson, Mrs. John Kettle, Mr. and Mrs. William VanValkenberg, motored to Saratoga to attend the Rebecca lodge meeting, August 27 and 28.

Miss Ester and Ruby Kettle returned home August 27, after spending the summer months with their Grandmother, Mrs. J. Kettle, of Denver.

Mr. and Mrs. A. E. Pautsch have returned to Salt Lake City after spending ten days at the home of their son, Percy Pautsch.

Mr. and Mrs. T. E. Blackwell were week end visitors at Dixon.

Mr. and Mrs. Charles Hill and daughters returned from Laramie on August 27.

A baby girl was born August 6 to Mr. and Mrs. Eric Lindroos.

Reliance

Mr. and Mrs. H. A. Lawrence were called to Chicago by the death of his sister, Mrs. R. H. Hylands. The community extends its sympathy.

Mr. and Mrs. J. A. McPhie have moved to Rock Springs where he will enter the insurance business. The J. T. Reese family has moved into the house vacated by them.

William (Bill) Banks, who for ten years has been book-keeper in the Reliance Store, has just been transferred to Winton. The community will miss greatly one who has been such a worth while citizen and extends best wishes for his success.

Mr. and Mrs. George D. Baxter were Ogden visitors over Labor Day.

Mr. and Mrs. Walter Johnson and Miss June Robinson, spent Labor Day in Evanston, Miss Robinson remaining there where she will attend school this Winter.

Mesdames Richard Dexter, Sam Dexter, and Mrs. Dave Edwards, of Superior, were visitors at the home of Mrs. James Robertson.

Mrs. Joseph Mitchelson and small son are on the sick list this week.

Mesdames Ebeling, Burns, Hall and Portwood, were visitors at the home of Mrs. R. Gibbs at Winton.

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Rock Springs

Miss Naomi Grove is a student at the Smithsonian Business College in Ogden, Utah.

Mr. and Mrs. James Spence of Salt Lake City were Reliance visitors over Labor Day. Miss Christene Korogi, who has spent several weeks in Salt Lake returned to her home here with them.

Mrs. William Johnson was the guest at a surprise birthday party at the home of Mr. and Mrs. Henry Johnson.

Jimmie Zelenka entertained several boy friends at a birthday party in honor of his tenth anniversary.

Mrs. D. M. Freeman and two children are visiting in Sioux City, Iowa, with Mrs. Freeman's mother.

Mr. and Mrs. Tom Hall and family, Mr. and Mrs. Frank Zelenka and family, Mrs. Jane Robertson, Woodrow and Dorothy, were Superior visitors Sunday.

Miss Audrey McPhie was a Reliance visitor on Wednesday. She is leaving for Salt Lake City to attend school this winter.

School has been resumed after a quiet vacation. The same efficient staff of teachers has reported for duty.

Thomas Warren has been transferred here from Tono to take the position vacated by J. A. McPhie. He is moving into the house vacated by J. T. Reese.

The Woman's Club commenced activities this week.

Among the many big catches over Labor Day was a fine mess of fish out of Boulder Lake made by William Sisk.

J. T. Reese and Barton Grosso report a very interesting three-day trip made by pack outfit through the Trapper Lake country. Some very good motion pictures were taken as also a good mess of Mountain Trout.

Hanna

Miss Alice Harrison, who is in nurses' training in Cheyenne, visited here with her folks for a few weeks.

Mrs. Joseph Maxson and son, of Amarillo, Texas, visited with the Bert Taylor family for a few days.

Mrs. Robert Cummings and Mrs. James Hearne were joint hostesses at a waffle supper at the Community Hall in honor of the drill team of the Women of the Mooseheart Legion.

Miss Ellen Leivo of California, visited here with her father.

Mr. and Mrs. H. W. Maki and daughter, returned from a motor trip to Washington state where they visited relatives.

Mr. Arvid Salmi attended the Olympic games in Los Angeles.

Dr. Ivanol Gibbons visited here for a few days with her sister, Mrs. Henry Peterson, on her return from New York City to San Francisco where she will soon leave for India as a missionary.

Mrs. Mary Terwilliger, of Livingston, Montana, Supreme Chief of the Pythian Sister Lodge, greatly honored the Hanna Temple, by paying them a visit on Monday evening, August 29.

Mrs. Straley of Sublet, Wyoming, is the guest of her sister, Mrs. O. C. Buchler.

Mr. and Mrs. Henry Straley and small son visited with the O. C. Buchler family for a few days.

Miss Lavona Groutage, of Winton, is visiting with her cousin, Lillian Higgins.

The Misses Marie Grooman, Dorothy Benedict and Phyllis Chadwick, and Carlyle Pomeroy, left on September 11 for Laramie where they will attend the University.

Mr. John Hughes is a patient at the Hanna Hospital.

The Epworth League entertained at a party at the Community Hall on September 9, in honor of Dorothy Benedict, Phyllis Chadwick and Carlyle Pomeroy who will leave to attend the University.

Mrs. Sarah Hudson returned from Rochester, Minn., where she underwent a major operation at Mayo Brothers. She is confined to her home but is getting along nicely.

Mrs. Joseph Lucas who also underwent an operation at the Mayo Brothers is at home and able to be about again.

Mrs. Chas. Gibbs, of Lander, is visiting here with her sister, Mrs. Frank Hathis, who is recovering from a recent illness.

Winton

Misses Margaret Rudeen, Lillian Munroe, and Muriel Crawford, and B. V. Ludington and George and Tom Seivert, have returned from their summer vacations to resume teaching at the Winton and Reliance schools. The enrollment in the Winton school is slightly less than last year.

Miss Marion Brack has gone to Boulder, Wyoming, where she will teach school this winter.

The entire camp extends its sympathy to the Jack Henderson family in the loss of their little son, Jackie, who died at the hospital in Rock Springs, on September 8, 1932, following a short illness.

Labor Day was fittingly observed at Winton with a program of sports, etc., and the usual candy and treat for the kids.

George Herd and Miss Edith Robertson are visiting at the Herd home.

Miss Betty Thomas has returned to Winton after spending the summer with her sister, Mrs. Lawrence Kinyon, in California.

A farewell party was given for Evelyn Jolly and Josephine Brack who left Tuesday, September 6, 1932, for Denver to take up nurses training. The evening was spent in dancing after which a dainty lunch was served.

Thomas Dodds, Jr., has left for Laramie where, he will attend the University of Wyoming.

Mrs. Archie Buchanan has left for Salt Lake City, where she will make her home with her daughter, Mrs. Frank Tolman.

Mrs. Leonard Fisher and daughter returned recently from California where they spent the summer.

Mr. and Mrs. Raino Matson and son and Mr. Matson's parents, spent the holidays in Salt Lake City.

Mr. Martin Reiva ("Butch") underwent a major operation at the hospital in Rock Springs and is improving at this writing.

Matt Reid returned to Winton recently after spending several months in Iowa with relatives.

Antonio Blazi and Pete Tagnani have returned to Italy for a visit with their families.



Mr. Bayless recently spent ten days in California. Looked up a brother and sister near Monterey and motored from Oakland and San Francisco to Los Angeles, San Diego, Tia Juana and Agua Caliente. He patronized the plane and reported having seen some fine country as well as had an enjoyable, speedy trip.

Joseph Asson saw a large portion of the Olympic Contests but unfortunately one could not witness them all so scattered were the various events—Pasadena, Los Angeles, Long Beach, etc.

"Ning" Williams has become a permanent fixture with the State Highway Department and will at an early date be "right in the thick of it", helping to spend some of the road funds under the tutelage of Division Engineer Templeton. Federal Aid money in generous amounts has been allotted to Wyoming.

Your "Colyum Conductor" wished he had a camera which

would take pictures after dark. The special event happened on the "horse-shoe pitching" grounds at Wardell Court one recent night about 7:30. Gus Anderson and Art Henkell were stooping down over the peg about which the "shoes" were clustered—Art claimed he had won the point and Gus, a little obstinate, maintained it belonged to him. Several matches were struck to determine the real winner, and they now talk of having lights installed for night play, similar to night golf-driving grounds. Henkell's car was handy and it could easily have been moved up to the scene of action.

Ernie Adams and Evan Griffiths motored to Portland and other cities in the Northwest for a two weeks' outing.

The company store at Tonó (Washington Union Coal Company) has been closed co-incidental with the mining property and "we have with us" the M. H. Messinger family, their many friends and acquaintances here extending a glad hand, etc.

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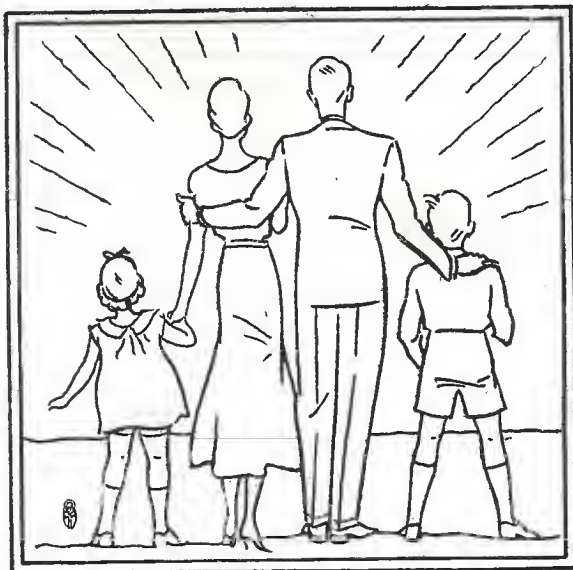
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